PB85-169217

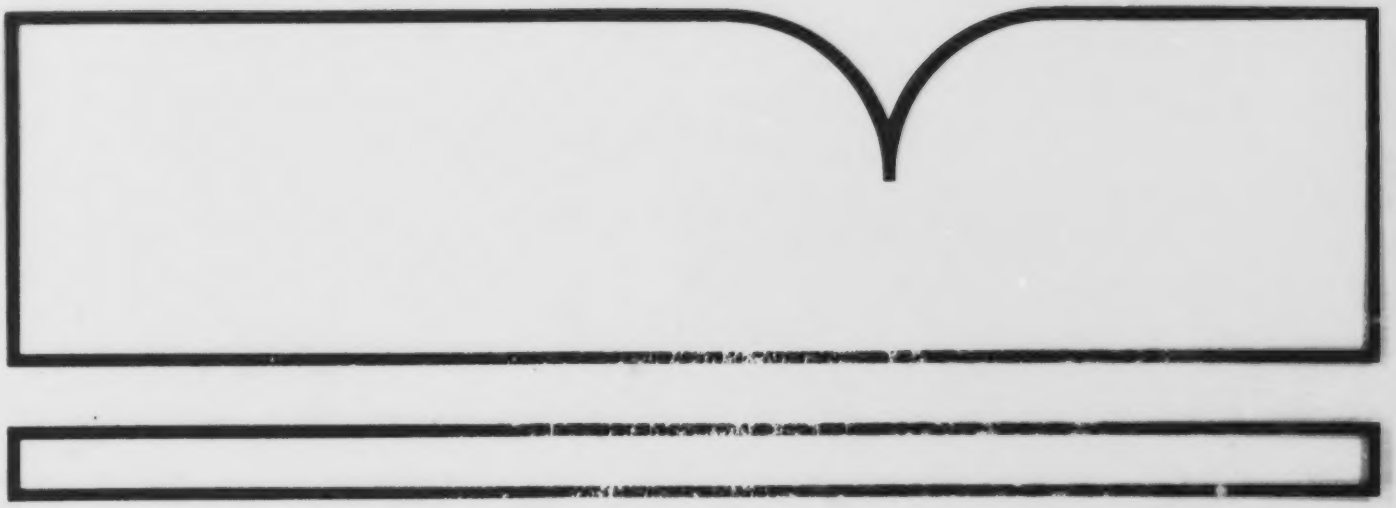
Surface Water Hydrology, Water Quality, and Aquatic Life of the Yampa River Basin Colorado-Wyoming: A Data Summary

Engineering-Science, Inc., Denver, CO

Prepared for

Environmental Protection Agency, Denver, CO

Sep 84



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PB85-169217

EPA-908/3-84-003
September 1984

THE SURFACE WATER HYDROLOGY, WATER QUALITY, AND AQUATIC LIFE OF THE YAMPA RIVER BASIN COLORADO-WYOMING

A Data Summary

by

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Contract No. 68-01-6587

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DENVER, COLORADO 80295

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SPRINGFIELD, VA. 22161

TECHNICAL REPORT DATA
(Please read Instructions on the reverse before completing)

1. REPORT NO.	2.	3. RECIPIENT'S ACCESSION NO.
EPA 908/3-84-003		PB85 169217/AS

4. TITLE AND SUBTITLE	5. REPORT DATE
The Surface Water Hydrology, Water Quality and Aquatic Life of the Yampa River Basin, Colorado-Wyoming - A Data Summary	September 1984
	6. PERFORMING ORGANIZATION CODE

7. AUTHOR(S)	8. PERFORMING ORGANIZATION REPORT NO.
David E. Ruiter Michael B. Bishop	

9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT NO.
Engineering-Science, Inc. 10 Lakeside Lane Denver, Colorado 80212	11. CONTRACT/GRANT NO. 68-01-6587

12. SPONSORING AGENCY NAME AND ADDRESS	13. TYPE OF REPORT AND PERIOD COVERED
U.S. Environmental Protection Agency Office of Policy and Management Region VIII Denver, Colorado 80212	Final
	14. SPONSORING AGENCY CODE EPA - 908

15. SUPPLEMENTARY NOTES

16. ABSTRACT

This document provides a summary of the available surface water hydrology, water quality, and aquatic life data for the Yampa River basin of Colorado and Wyoming. This report is intended to provide a reference document for regulators, developers, and others who may be involved in the study of aquatic ecosystems within the region.

More than 110 documents were reviewed during the compilation of this report and those that contained pertinent data are summarized. Two sections of the report are concerned with data deficiencies and reference stream recommendations. These sections should be useful in the design and implementation of future studies within the region.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Water Quality-Yampa River Basin Benthos-Yampa River Basin Fish-Yampa River Basin Hydrology-Yampa River Basin Yampa River Basin, Colorado-Wyoming		

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS *(This Report)*	21. NO. OF PAGES
		439
	20. SECURITY CLASS *(This page)*	22. PRICE

EPA Form 2220-1 (Rev. 4-77) PREVIOUS EDITION IS OBSOLETE

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INTRODUCTION

The Yampa River, largest tributary to the Green River, arises on the western slope of the Rocky Mountains near Yampa, Colorado. It flows northward and then westerly for approximately 200 miles before joining the Green River in Dinosaur National Monument. The Yampa River drains about 8,000 square miles with an average annual discharge of 1.2 million acre feet (Carlson et al. 1979).

In the Yampa basin, energy resource development will primarily be strip mining of coal with construction of associated coal gasification, coal-fired powerplants and transportation facilities. Development of uranium reserves, oil and gas fields, and other resources will occur, but to a much lesser extent. One of the biggest impacts will undoubtedly result from competition for water resources created by growing demands of municipal, industrial, agricultural, and reclamation projects. Energy development, which requires large amounts of water during extraction, transportation, and conversion of resources to a usable form, can potentially have a great impact on water quality in the basin.

Although essentially unaltered by major reservoirs, the basin is substantially affected by irrigation diversions during the summer months. If energy development activities in this region are to progress as anticipated, additional storage facilities will be necessary to sustain year-round industrial operations, particularly in the summer months. Development of a number of large reservoirs has been proposed for the Yampa basin. Total storage capacities of these impoundments would total 2.4 million acre feet approximately 2 times the long-term mean annual streamflow discharged from the basin (Wentz and Steele 1976). The potential impact of these developments on seasonal streamflow patterns, fisheries, and downstream water quality should be carefully examined before implementation is allowed to take place.

Development of this energy reserve poses a threat to the water resources and associated wildlife throughout the region. The Yampa River basin is one of the last, relatively free-flowing major river basins in the southern Rocky Mountains. As such, the basin contains several unique aquatic habitat types which have all but disappeared from the region. Any activity which has the potential for degrading or consuming this water should be monitored to insure that impacts on the water resources are minimized. The initial step in the monitoring of environmental systems is the definition of existing conditions.

The purpose of this document is to provide a summary of the available surface water hydrology, water quality, and aquatic life data for the Yampa River basin of Colorado and Wyoming. This report is intended to provide a reference document for regulators, developers, and others who may be involved in the study of aquatic ecosystems within the region.

More than 110 documents were reviewed during the compilation of this report and those that contained pertinent data are summarized. Two sections

of the report are concerned with data deficiencies and reference stream recommendations. These sections should be useful in the design and implementation of future studies within the region.

The information in this document was collected from numerous institution and agency libraries throughout Colorado and Wyoming. Technical reports and journal articles comprise the majority of the material contained in this document. When available, raw data from various industries and agencies were incorporated. Other raw data sources included agency computerized data bases. Special effort was made to obtain and summarize the most recent applicable reports. Availability of recent articles depended on the responsiveness of the numerous agencies which conduct standardized studies within the project area.

METHODS

ABBREVIATIONS USED

As a result of the numerous organizational data sources and publications cited in this document, a standardized list of abbreviations was developed for ease of use and to save space. The abbreviations used throughout the remainder of this document are listed in Table 1.

STUDY AREA

The study area was defined as the Yampa River basin in northwestern Colorado and southern Wyoming (Figure 1). Occasionally, data outside this area were included in the summary section, especially when they provided a long-term upstream reference locality, such as the USGS stream gages on the Green River. The study area was divided into eight units for description purposes. These eight units were segregated based on the available data and drainage patterns. Standardized maps were developed for each of the units. The eight units include the lower Yampa River and minor tributaries, Little Snake River basin, Milk Creek basin, Williams Fork River basin, Fortification Creek basin, the upper Yampa River and minor tributaries, Trout Creek basin, and Elk River basin. The level of detail of the maps was determined by the extent of the available data.

DATA PRESENTATION

The data obtained and reviewed during the literature search were divided into four disciplines: surface water hydrology, surface water quality, aquatic life, and aquatic habitat. The summary section is divided into these disciplines within each basin. A list of all of the hydrology, water quality, and aquatic life sampling localities identified in the study area is located in Appendix A.

Hydrology

Data from the USGS WATSTORE files were found to be the sole source of data available in the study area that met the criteria for data selection established for this study. It is important to note that this is a data summary and is not intended to provide all of the available hydrologic data. However, mention is made of other sources of hydrologic data available for each of the basins in the study area as part of the hydrologic discussion provided for each major drainage basin.

The surface water hydrologic data for over 60 stations (Table 2) are summarized using annual, monthly, and low flow information (Appendix B). Annual streamflow has been summarized into mean annual discharge, maximum mean annual discharge, and minimum annual discharge. Streamflow has also been summarized on a monthly basis according to mean monthly discharge, maximum mean monthly discharge and minimum mean monthly discharge. Low flow data are summarized as the 7-day low flow with a 10-year recurrence interval. The peak

TABLE 1. ABBREVIATIONS USED

Organizations:

BLM	- United States Bureau of Land Management
CDOW	- Colorado Division of Wildlife
CDOH	- Colorado Department of Health
COE	- United States Army Corps of Engineers
EPA	- United States Environmental Protection Agency
USBR	- United States Bureau of Reclamation
USFS	- United States Forest Service
USFWS	- United States Fish and Wildlife Service
USGS	- United States Geological Survey
USNWS	- United States National Weather Service
WDEQ	- Wyoming Department of Environmental Quality
WGFD	- Wyoming Game and Fish Department
WWGD	- Wyoming Water Quality Division

States:

CO	- Colorado
WY	- Wyoming

Counties:

CA	- Carbon
GA	- Garfield
MF	- Moffat
RB	- Rio Blanco
RT	- Routt
SW	- Sweetwater

Units:

cfs	- cubic feet per second
°C	- degrees Celsius
mg/l	- milligrams per liter
ug/l	- micrograms per liter
umhos	- micromhos per centimeter
ppm	- parts per million
TDS	- total dissolved solids
TSS	- total suspended solids

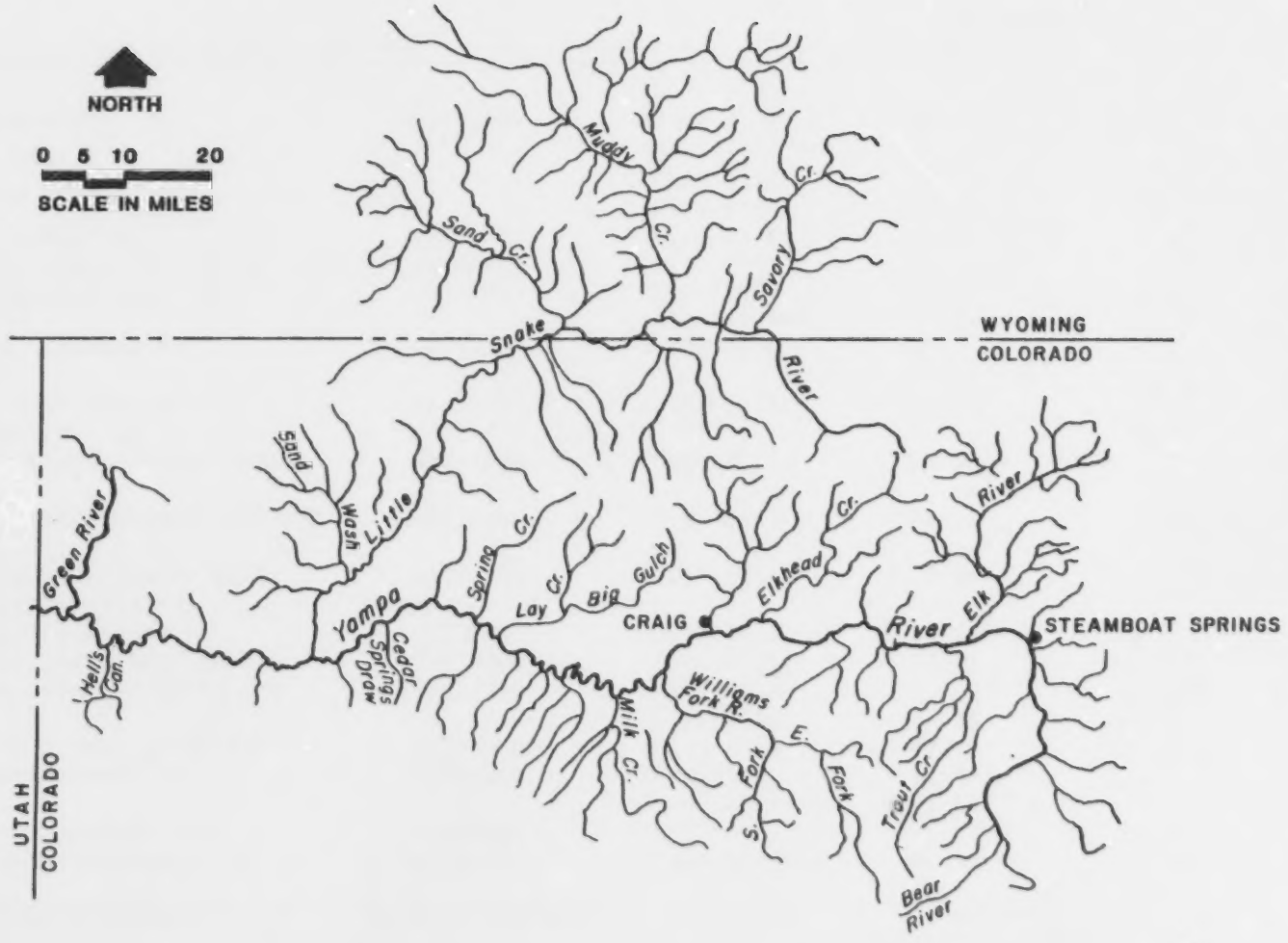


FIGURE 1. YAMPA RIVER STUDY AREA.

TABLE 2. AVAILABLE USGS STREAMFLOW DATA FOR THE STUDY AREA INCLUDING THE TOTAL PERIOD OF RECORD AND ANALYZED PERIOD OF RECORD[1/]

Station Location	Station Number	Total Period of Record	Analyzed Period of Record[2/]
Green River near Greendale, UT	09234500	10/50-Present	64-83
Bear River near Toponas, CO	09236000	10/52-9/65	54-65
		10/66-Present	67-83
Bear River near Yampa, CO	09236500	9/39-9/44	41-44
Yampa River near Oak Creek, CO	09237500	10/39-9/44	41-44
		10/56-9/72	57-72
Service Creek near Oak Creek, CO	09237800	10/65-9/73	67-73
Oak Creek near Oak Creek, CO	09238000	10/52-9/57	54-57
North Fork Walton Creek near Rabbit Ears Pass, CO	09238300	10/72-10/75	73-76
Fishhook Creek near Rabbit Ears Pass, CO	09238350	10/72-10/75	73-76
Walton Creek near Steamboat Springs, CO	09238500	10/65-9/73	67-73
Fish Creek at upper station near Steamboat Springs, CO	09238900	10/66-9/72	68-72
Spring Creek near Steamboat Springs, CO	09239400	10/65-9/72	67-72
Yampa River at Steamboat, CO	09239500	10/04-9/06	06
		3/16-Present	10-83
Elk River at Hinman Park, CO	09240500	1/13-12/18	14-18
South Fork Elk River near Clark, CO	09240800	10/66-10/73	68-73
Elk River at Clark, CO	09241000	10/10-9/16	12-16,18,20,
		10/17-9/18	32-83
		10/19-9/20	
		10/31-Present	
Elk River near Trull, CO	09242500	10/04-9/06	06,11-27
		10/09-9/27	

(continued)

TABLE 2. (continued)

Station Location	Station Number	Total Period of Record	Analyzed Period of Record[27]
Middle Creek near Oak Creek, CO	09243700	10/75-Present	76-83
Foidel Creek near Oak Creek, CO	09243800	10/75-Present	76-83
Foidel Creek at mouth near Oak Creek, CO	09243900	10/75-Present	76-83
Fish Creek near Milner, CO	09244100	10/55-10/73	57-73
Grassy Creek near Mt. Harris, CO	09244300	10/58-9/66	59-66
Yampa River near Hayden, CO	09244400	10/65-9/72	67-72
Gibraltar Canal near Hayden, CO	09244405	10/70-9/73	71-73
Yampa River, below diversion, near Hayden, CO	09244410	10/65-Present	67-83
Sage Creek above Sage Creek near Hayden, CO	09244415	4/81-Present	81-83
Watering through Gulch near Hayden, CO	09244460	7/79-9/81	79-81
Hubberson Gulch near Hayden, CO	09244464	7/79-9/81	79-81
Stokes Gulch near Hayden, CO	09244470	6/76-9/81	76-81
Elkhead Creek near Clark, CO	09244500	10/42-3/43 7/43-9/44 10/58-10/73	60-73
Elkhead Creek near Elkhead, CO	09245000	4/53-Present	54-83
North Fork Elkhead Creek near Elkhead, CO	09245500	10/58-10/73	60-73
Elkhead Creek near Craig, CO	09246500	1/10-12/18	11-18
Fortification Creek near Craig, CO	09246900	10/55-9/60	56-60
Fortification Creek at Craig, CO	09247000	10/09-10/18 10/43-9/47	10-18 44-47
Yampa River at Craig, CO	09247500	1/04-10/06 1/10-12/16	05 11-16
East Fork of Williams Fork near Willow Creek, CO	09248500	9/43/-9/47	45-47

(continued)

TABLE 2. (continued)

Station Location	Station Number	Total Period of Record	Analyzed Period of Record[27]
East Fork of Williams Fork above Willow Creek, CO	09248600	10/56-9/72	58-72
East Fork of Williams Fork near Pagoda, CO	09249000	10/53-9/71	55-71
South Fork of Williams Fork near Pagoda, CO	09249200	10/65-9/79	
Williams Fork at Hamilton, CO	09249500	10/04-9/06	05-06
		10/09-9/27	10-27
Morapos Creek near Hamilton, CO	09249700	10/65-9/67	66-67
Milk Creek near Thornburgh, CO	09250000	10/52-Present	54-83
Good Spring Creek at Axial, CO	09250400	10/74-3/78	75-78
Wilson Creek above Taylor Creek near Axial, CO	09250507	10/80-Present	
Taylor Creek at mouth near Axial, CO	09250510	7/75-Present	75-83
Wilson Creek near Axial, CO	09250600	10/74-9/80	76-80
Jubb Creek near Axial, CO	09250610	8/75-9/81	75-81
Yampa River near Maybell, CO	09251000	4/16-Present	17-83
Main Fork Little Snake River near Battle Creek, CO	09251500	5/12-9/22	14-22
North Fork Little Snake River near Encampment, WY	09251800	10/56-9/65	57-65
North Fork Little Snake River near Slater, CO	09251900	4/56-9/63	56-63
South Fork Little Snake River near Battle Creek, CO	09252500	1/13-12/20	14-20
Little Snake River near Slater, CO	09253000	10/42-9/47	44-47
		10/50-Present	51-83
Battle Creek near Encampment, WY	09253400	4/56-9/63	56-63

(continued)

TABLE 2. (continued)

Station Location	Station Number	Total Period of Record	Analyzed Period of Record[2/]
Battle Creek near Slater, CO	09253500	10/42-9/51	43-51
Slater Fork at Baxter Ranch near Slater, CO	09254500	1/13-10/20	14-20
Slater Fork near Slater, CO	09255000	10/31-Present	33-83
East Fork Savery Creek near Encampment, WY	09255400	4/56-9/58	56-58
Savery Creek at upper station near Savery, WY	09255500	10/40-9/44	1941
		10/52-9/71	1953-1971
Big Sandstone Creek near Savery, WY	09255900	4/56-9/58	56-58
Savery Creek near Savery, WY	09256000	10/41-9/46	42-46
		10/47-9/72	48-72
Savery Creek at Savery, WY	09256500	5/15-9/16	15-16
		4/18-9/22	19-22
Little Snake River near Dixon, WY	09257000	5/10-9/23	11-23
		4/38-11/71	39-71
Willow Creek near Dixon, WY	09258000	10/53-Present	55-83
Little Snake River near Lily, CO	09260000	10/21-Present	23-83
Yampa River at Deerlodge Park, CO	09260050	9/82-Present	82-83
Green River near Jensen, UT	09261000	10/03-12/04	64-83
		3/06-9/06	
		7/14-10/14	
		8/15-12/15	
		10/46-Present	

1/ Where there is a discrepancy between the period of record and analyzed period of record, the computer analysis disregarded years of data where data were missing or there was too much variation in the data for a given year.

2/ The analyzed period of record is by water year (October through September).

flow data are summarized according to the predicted 2, 5, 10, 25, 50, and 100 year recurrence interval flood event. Flow duration probabilities are provided to depict the percentage of time that any given discharge is exceeded. It should be noted that the entire period of record was analyzed for all stations with the exception of the hydrologic record on the Green River. The period of record analyzed for the Green River was from 1964 to present in order to account for the effect of Flaming Gorge Reservoir on streamflow beginning in 1964. There are no other known effects on streamflow (affecting at least 10 percent of the annual flow) within the study area that would preclude analyzing the total period of record (Harold Petsch, USGS Denver, personal communication 1984).

For both the low flow and the flood prediction information, the quality of the prediction is dependent on the amount of streamflow information available to make the prediction, and the variance of the information that is available. The computer program developed by the USGS rejected the low flow analysis when there were less than 3 years of record or if there were less than three non-zero events that occurred at the site in question. Similarly, the computer analysis for peak flow rejected the flood prediction when there were insufficient data or where there was too much variance in the streamflow data. The peak flows were predicted using two methodologies. A method recommended by the Water Resources Council (WRC) (Interagency Advisory Committee on Water Data, 1982) and a method that uses the station data alone. The difference between the two flood prediction techniques is that the WRC method uses a weighted skew factor that is dependent on regional flow values. The systematic record flood flow estimate is dependent only on the skew value calculated from the streamflow data from the individual site. Both flood flow estimation techniques should be considered preliminary in nature when the period of record is short. For stations with an extremely long period of record, the systematic record prediction of flood flow should be considered the most reliable.

In the following discussions the hydrology information is presented on a basin by basin basis. The discharge characteristics of each major tributary is described on the basis of hydrographs that can be found in Appendix C. Each hydrology section is concluded by a summary of the available hydrologic literature pertinent to each sub-basin.

Water Quality

The EPA STORET data base was used to assemble the water quality data for the study area. STORET was used to summarize surface water quality collections for the period from 1 January 1978 to 31 December 1983. January 1978 was selected as a beginning date because more consistent data entry methods have been used by all agencies submitting data to the STORET system since that time. Prior to 1978, detection limits as well as parameter designations varied greatly between reporting entities. December 1983 was selected as an endpoint so that the incomplete 1984 data would not affect any comparisons. Appendix D contains copies of STORET inventory runs for stations which had more than 24 samples for any one parameter during the 1978 through 1983 period of record. The selection of 24 samples was based on the premise that this

would represent at least quarterly sampling for a given parameter. It was not possible to analyze all of the station records to determine if quarterly sampling was actually conducted. A total of 22 parameters was selected for the summary section based on the significance of these parameters to the various regulatory agencies and their potential for providing an indication of coal-related perturbation. Appendix E includes a graphical summary of the 1978 through 1983 water quality for all analyzed stations within the study area. The data summary section provides a review of available water quality data that have not been entered into the STORET data base.

Aquatic Life

The summaries of aquatic life within the study area contain reviews of various publications, including conclusions of the study if they were presented. The conclusions are those of the cited authors and are not to be considered to be conclusions of this document. They are presented to provide the reader as complete a summary of the reviewed publications as possible. The summary sections include figures which indicate the locations of the collection sites of the various authors. These figures are based on interpretation, and occasionally expansion, of the data presented by the cited authors. In several instances, the published locality information did not coincide with the published figures. In such instances, comparison of subsequent documents usually allowed an accurate location to be made. The macroinvertebrate species lists presented in the summary sections and Appendix G include higher taxonomic classifications that have been adjusted to those of Merritt and Cummins (1978). Generally, biomass and diversity data have not been summarized. The variations between collection methods, level of identification, temporal abundance, and laboratory methodology among the various authors preclude a realistic comparison between the studies. In many cases, laboratory and field methodologies were not provided. The collection of algal data is noted, however, summaries of the data were not attempted. Inconsistencies within algal taxonomy would have made summaries or species lists highly subjective.

Aquatic Habitat

The aquatic habitat sections contain a summary of the aquatic habitat for each of the drainage areas. These summaries include overviews of the hydrologic, water quality, and aquatic life parameters which exist in each of the basins. The substance of this section is completely dependent on the existing data. When limited data are available, few conclusions can be drawn.

DATA SUMMARIES

The main stem of the Yampa River was divided into two segments for summary purposes. The lower segment, downstream from Elkhead Creek, runs through open agriculture-dominated valleys and several, relatively inaccessible canyon reaches (Figure 2). The Fortification, Williams Fork, Milk, and Little Snake tributaries to the Lower Yampa are discussed in subsequent sections of this report.

LOWER YAMPA RIVER BASIN AND MINOR TRIBUTARIES

Hydrology

The Yampa River is a major perennial tributary to the Green River in northwestern Colorado. At the lowest gaging station on the Yampa River at Deerlodge Park, Colorado, (Station No. 09260050) 5.5 miles downstream from the confluence with the Little Snake River (Figure 3), the drainage area is approximately 7,660 square miles. Approximately 65 percent of the annual streamflow in the Yampa River occurs in May and June (Steele et al. 1979) which corresponds to the spring snowmelt period. The majority of the precipitation occurs as snow during the months of November through April (Bishop et al. 1982).

The annual water yield from the Yampa River is derived primarily from melting of accumulated snow in the higher elevations of the basin. It is estimated that the Yampa River headwaters comprise 20 percent of the watershed but produce 58 percent of the total surface runoff (Melancon et al. 1980).

In the lower Yampa River basin, there are three stream gaging stations that provide streamflow information for this part of the basin, the Yampa River at Deerlodge Park, near Maybell, and at Craig, (Station Nos. 09260050, 09251000, and 09247500, respectively). Streamflow at each of these stations has been observed to be perennial; however, the gaging station at Craig, Colorado, was discontinued in 1916. A trend is observable concerning the discharge characteristics of the lower Yampa River. At the most downstream station at Deerlodge, the base flow period occurs during September through January; which is typical of the stations in the lower Yampa River basin. The peak discharge occurs progressively later in the year in a downstream direction (varying from April to June). This variation in stream discharge occurs because the snowmelt or peak flow runoff is delayed in higher elevation watersheds. Similarly, each of the streamflow records exhibit a slight peak between August and November which is simultaneous with the end of the irrigation season and the first killing frost that would reduce the water requirements for phreatophytes in the basin.

Water Quality

Long-term water quality data for the 1978-1983 period are available from four main stem stations within the lower Yampa River basin (Figure 3). A general trend of increasing values in a downstream direction is apparent (Appendix E).

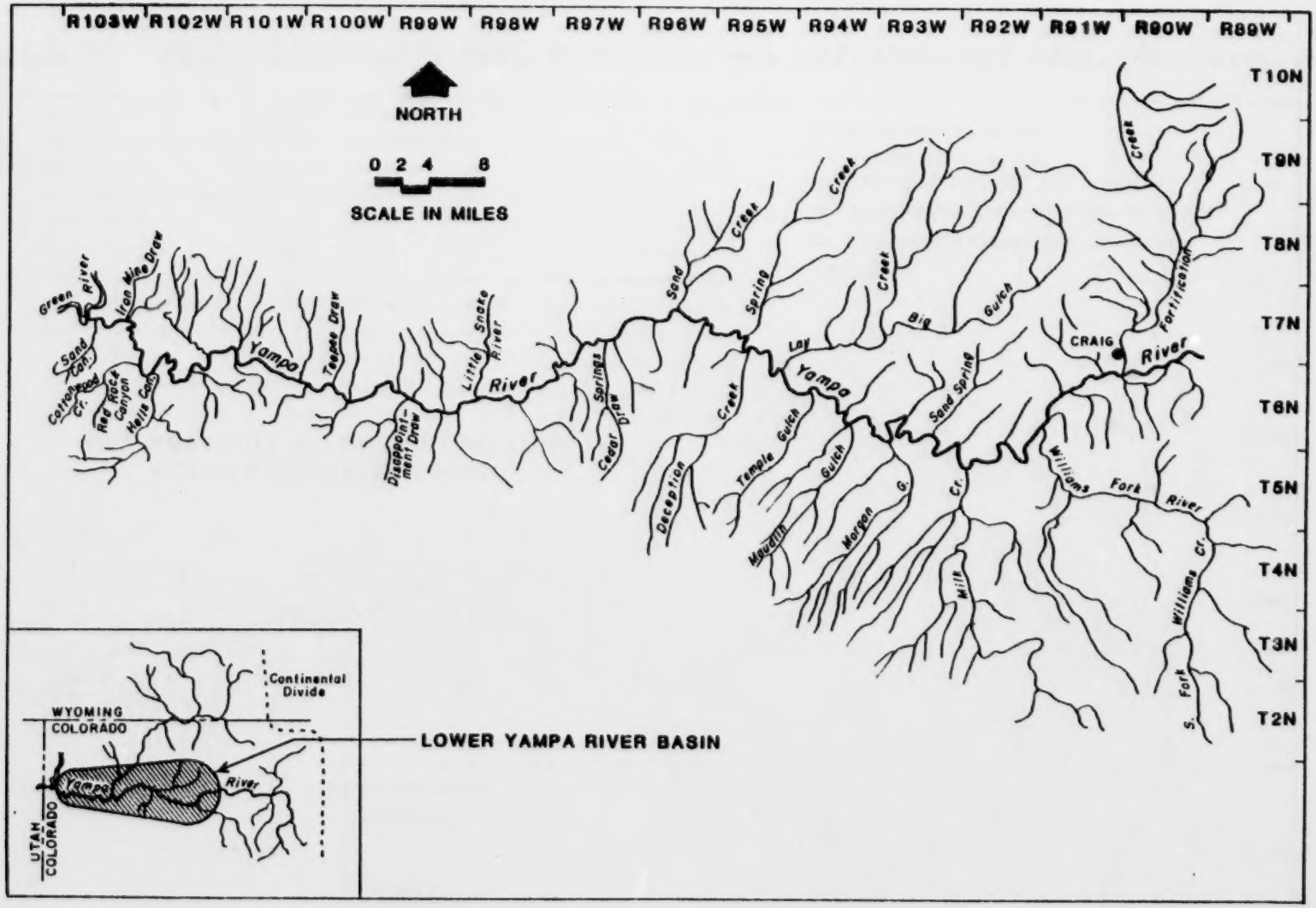


FIGURE 2. LOWER YAMPA RIVER BASIN.

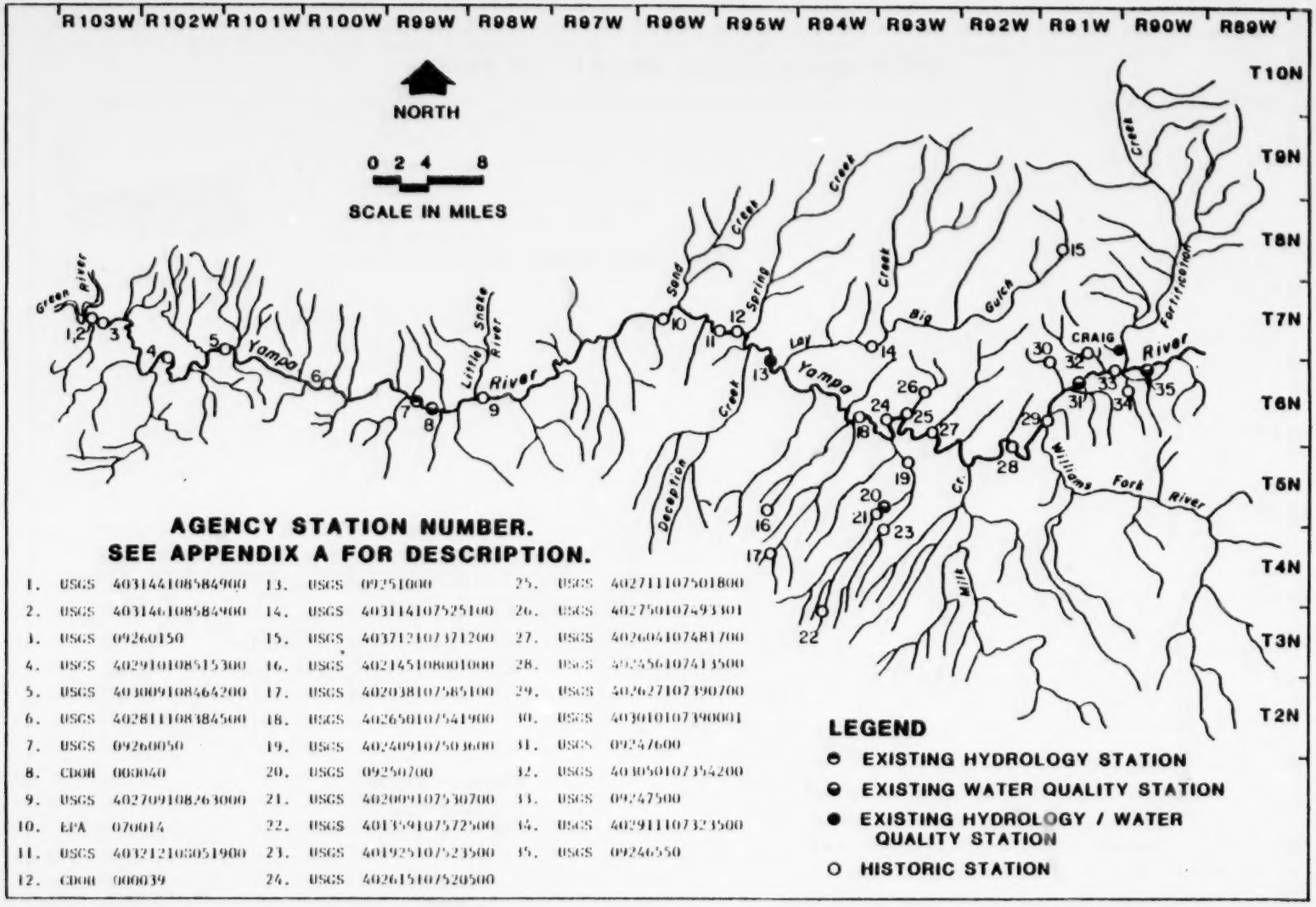


FIGURE 3. LOWER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

The CDOH has divided the lower Yampa River basin into six segments with associated use classifications (Figure 4). Copper was the only analyzed parameter which exceeded the CDOH numeric standards during the 1978-1983 period. No additional publications directed toward lower Yampa River water quality were located.

Aquatic Life

The aquatic life of the lower segment of the Yampa River has been extensively surveyed, with more than 35 publications available (Table 3). The majority of the surveys have been designed to document the distribution and habitat preference of the Colorado squawfish and other sensitive fish species.

The first reported fish surveys of the lower Yampa River were conducted by Baily and Alberti (1952) to document the existing habitat and fish distribution of the Yampa River downstream from Hayden. A total of 13 species was reported (Table 4). Baily and Alberti reported the Colorado squawfish to be common throughout the Lower Yampa. They did not, however, report the presence of roundtail chubs. No fish collection locations were included. They concluded that the trout fishery was being maintained naturally upstream from Craig. The reach between Craig and Cross Canyon was considered to be productive but did not support a trout fishery. Downstream from Cross Mountain, the Yampa was considered unproductive because of increased siltation and pool frequency. Baily and Alberti also collected aquatic macroinvertebrates at three locations along the lower Yampa River segment (Figure 5). The identifications were only made to the level of order (Table 5).

The CDOW conducted a limited survey along the lower Yampa directed toward determining habitat suitability for channel catfish (Lemons 1955; Lynch and Lemons 1956). Only three taxa were reported (Table 4) with "bonytails" being caught at every hole sampled. It is likely that these were Gila robusta, roundtail chub, as bonytail was the common name for all chubs at that time.

Hagen (1962) collected a total of 10 fish species (Table 4) at two localities on the lower Yampa River (Figure 6). Hagen noted the confusion that exists in the identification of the Gila species and believed that the majority of the specimens he collected were roundtail chubs.

Woodbury and Argyle (1963) reported a total of 25 macroinvertebrate taxa from collections made during 1962. No additional data were provided.

Banks (1964) reported on detailed fisheries studies conducted during 1961 and 1962 along the lower Yampa River. Seines, electroshocking, gill nets, rotenone, and hook and line were all used to sample at Castle Park and Echo Park in Dinosaur National Monument (Figure 6). A total of 11 taxa was reported. Banks noted that many of the Gila specimens were intermediate between the bonytail, humpback, and roundtail forms.

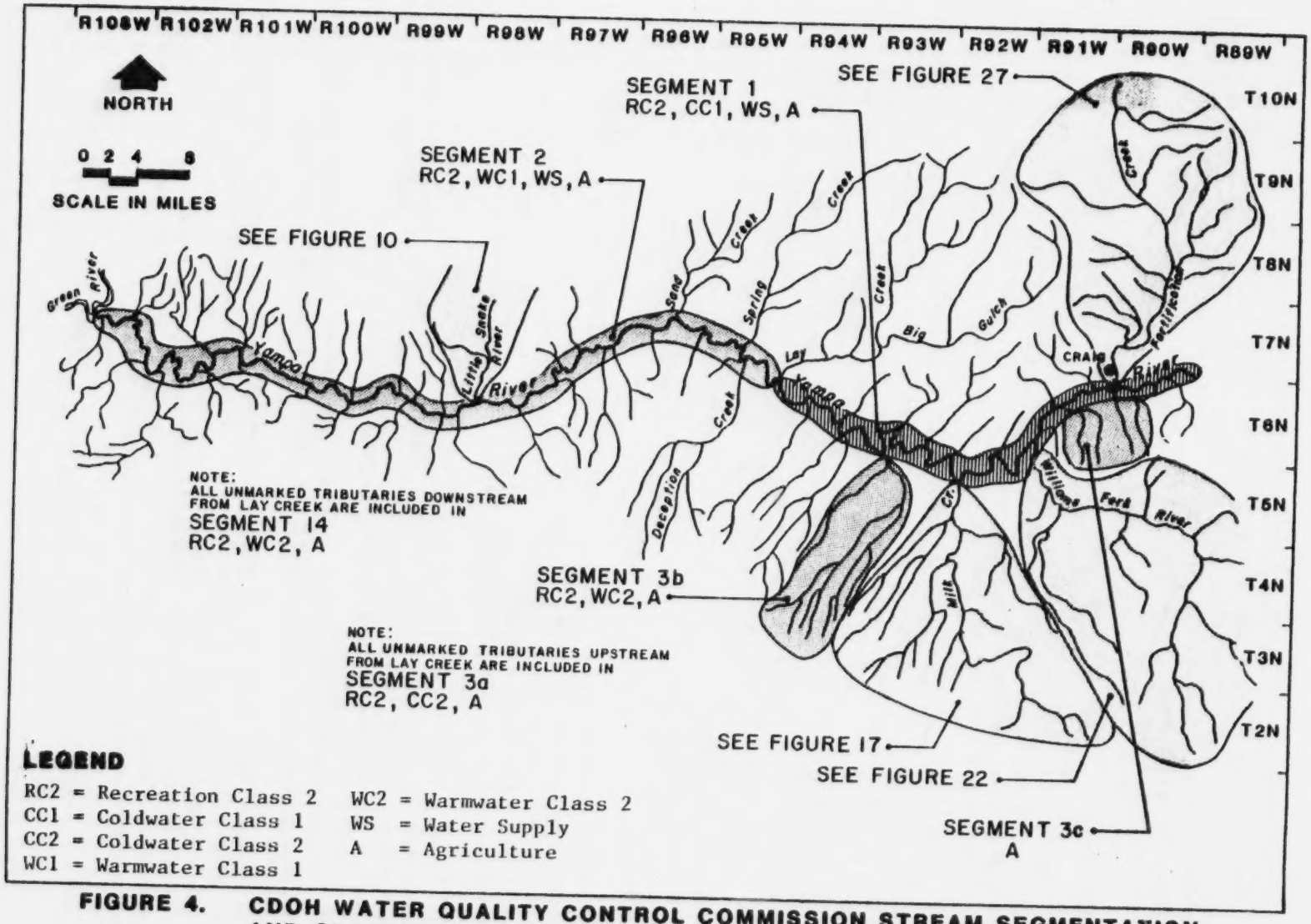


FIGURE 4. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATIONS FOR THE LOWER YAMPA RIVER BASIN.

TABLE 3. AQUATIC LIFE STUDIES WITHIN THE LOWER YAMPA RIVER BASIN INCLUDING THE MINOR TRIBUTARIES

Periphyton	Macroinvertebrates	Fish	Literature Source
		X	Baily and Alberti 1952
		X	Lemons 1955
		X	Lynch and Lemons 1956
		X	Hagen 1962
	X		Woodbury and Argyle 1963
		X	Banks 1964
		X	Miller 1965
	X	X	Oblad 1969
		X	Stalnaker and Holden 1973
		X	Holden and Stalnaker 1975a
		X	Holden and Stalnaker 1975b
		X	Prewitt and Carlson 1975
	X		Ames 1977
		X	Mc Ada 1977
		X	Prewitt 1977
		X	Prewitt et al. 1978
		X	Seethaler 1978
	X	X	Carlson et al. 1979
		X	Wick et al. 1979
	X		Annear 1980
		X	McAda and Wydoski 1980
		X	National Park Service 1980
		X	ERI 1981
		X	Haynes and Muth 1981
		X	Holden and Wick 1981
		X	Tyus et al. 1981
		X	Valdez and Clemmer 1981
		X	Wick et al. 1981a
		X	Wick et al. 1981b
		X	Haynes and Muth 1982
		X	Miller et al. 1982
	X		Wu et al. 1982
		X	Haynes and Muth 1983
		X	Haynes et al. 1983
		X	Wick et al. 1983
		X	Haynes et al. 1984
		X	Wick et al. 1984

TABLE 4. FISH REPORTED FROM THE LOWER YAMPA RIVER BASIN INCLUDING THE MINOR TRIBUTARIES

Taxa	Literature Source: Baily and Alberti 1952	Lemons 1955	Hagan 1962	Banks 1964	Miller 1965
Mountain whitefish	X				X
Brown trout	X				
Cutthroat trout	X				X
Rainbow trout	X				
Northern pike					
Carp	X		X	X	X
Utah chub					
Bonytail chub					
Humpback chub					X
Roundtail chub		X	X	X	X
Red shiner					
Sand shiner					
Fathead minnow				X	X
Colorado squawfish	X	X	X	X	X
Speckled dace	X		X	X	X
Redside shiner			X	X	X
Creek chub	X				
White sucker					X
Bluehead sucker	X		X	X	X
Flannelmouth sucker	X		X	X	X
Razorback sucker					X
Channel catfish	X	X	X	X	X
Black bullhead					X
Plains killifish					
Green sunfish	X		X	X	
Bluegill					
Largemouth bass					
Smallmouth bass					
Walleye					
Mottled sculpin	X	X	X	X	

(continued)

TABLE 4. (continued)

Taxa	Literature Source						
	Stalnaker and Holden 1973	Holden and Stalnaker 1975a	Holden and Stalnaker 1975b	Mc Ada 1977	Prewitt 1977	Prewitt et al. 1978	Seethaler 1978
Mountain whitefish		X	X			X	
Brown trout		X	X	X			
Cutthroat trout		X	X				
Rainbow trout		X	X	X			
Northern pike							
Carp		X	X	X		X	
Utah chub							
Bonytail chub	X	X	X				
Humpback chub	X	X	X				
Roundtail chub	X	X	X	X		X	
Red shiner			X				
Sand shiner						X	
Fathead minnow		X	X			X	
Colorado squawfish	X	X	X	X			X
Speckled dace		X	X				
Redside shiner		X	X			X	
Creek chub			X				
White sucker		X	X	X	X	X	
Bluehead sucker	X	X	X	X	X	X	
Flannelmouth sucker	X	X	X	X	X	X	
Razorback sucker	X	X	X	X			
Channel catfish		X	X	X			
Black bullhead		X	X	X		X	
Plains killifish						X	
Green sunfish		X	X				
Bluegill		X	X				
Largemouth bass		X	X				
Smallmouth bass							
Walleye		X	X				
Mottled sculpin			X			X	

(continued)

TABLE 4. (continued)

Taxa	Literature Source: Carlson et al. 1979	Seethaler et al. 1979	Smith et al. 1979	Wick et al. 1979
Mountain whitefish	X			X
Brown trout	X			
Cutthroat trout				
Rainbow trout	X			
Northern pike				
Carp	X			X
Utah chub		X		
Bonytail chub			X	
Humpback chub		X	X	
Roundtail chub	X		X	X
Red shiner		X		
Sand shiner	X	X		X
Fathead minnow	X			X
Colorado squawfish	X	X		X
Speckled dace	X			X
Redside shiner	X			X
Creek chub	X			
White sucker	X			X
Bluehead sucker	X			X
Flannelmouth sucker	X			X
Razorback sucker		X		
Channel catfish	X			X
Black bullhead	X			
Plains killifish	X	X		X
Green sunfish				
Bluegill				
Largemouth bass				
Smallmouth bass				
Walleye				
Mottled sculpin	X			X

(continued)

TABLE 4. (continued)

Taxa	ERI 1981	Hughes 1981	Wick et al. 1981	Haynes and Muth 1982	Miller et al. 1982	Haynes et al. 1983	Wick et al. 1983	Wick et al. 1984
	Literature Source							
Mountain whitefish			X	X	X			X
Brown trout			X		X			X
Cutthroat trout								
Rainbow trout			X		X			X
Northern pike			X		X			X
Carp			X	X	X			X
Utah chub								
Bonytail chub								
Humpback chub					X			X
Roundtail chub	X		X		X			X
Red shiner	X		X	X	X	X		
Sand shiner	X		X	X	X	X		X
Fathead minnow	X		X	X	X			X
Colorado squawfish			X	X	X		X	X
Speckled dace	X		X	X	X	X		X
Redside shiner	X		X	X	X			X
Creek chub				X	X			
White sucker			X	X	X			X
Bluehead sucker	X		X	X	X	X		X
Flannelmouth sucker	X		X	X	X	X		X
Razorback sucker			X					
Channel catfish	X		X	X	X	X		X
Black bullhead			X		X			X
Plains killifish		X	X	X	X			X
Green sunfish			X	X	X			X
Bluegill								
Largemouth bass								
Smallmouth bass					X			X
Walleye								
Mottled sculpin			X	X	X			X

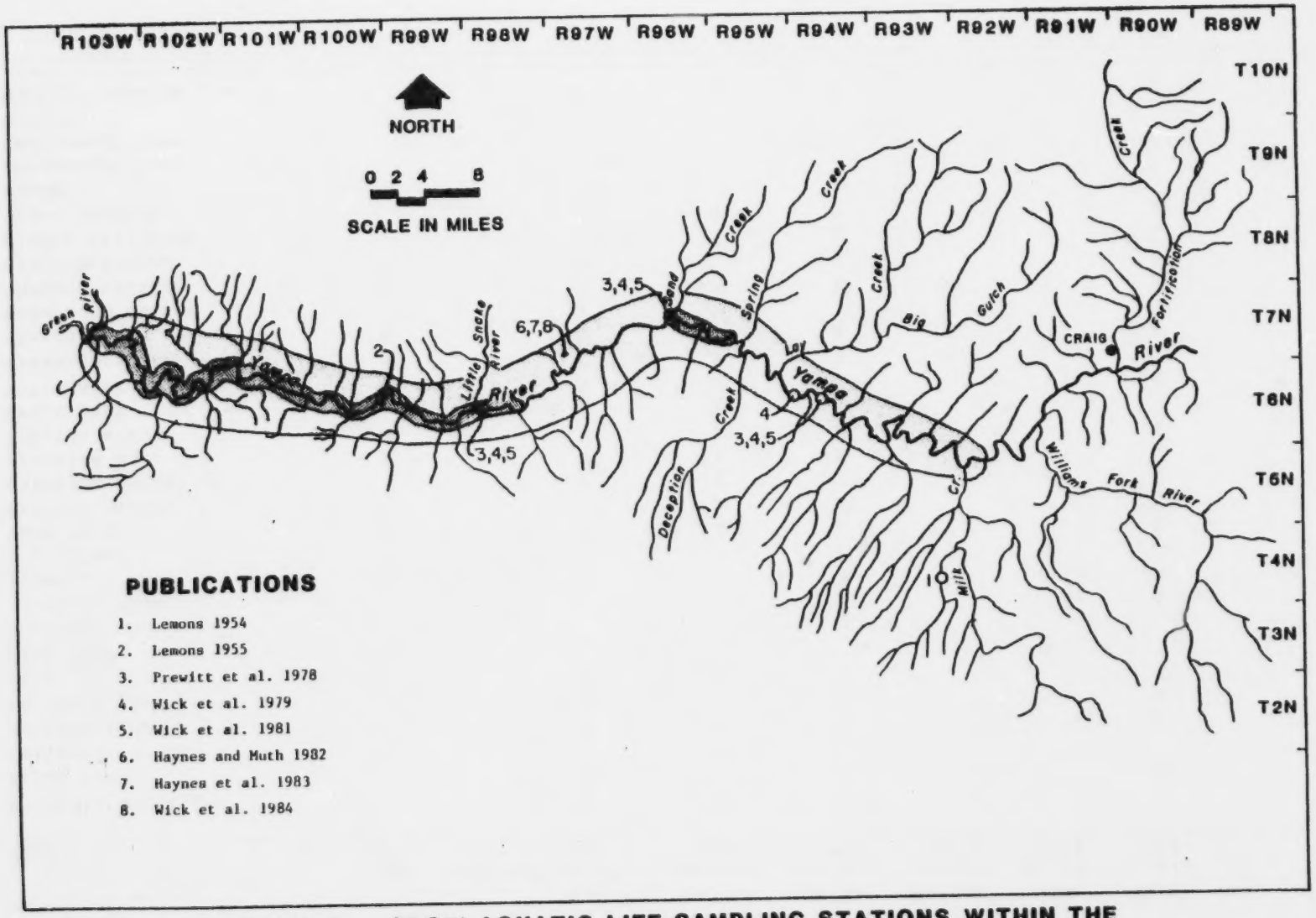


FIGURE 5. CDOW AQUATIC LIFE SAMPLING STATIONS WITHIN THE LOWER YAMPA RIVER BASIN AND MINOR TRIBUTARIES.

TABLE 5. AQUATIC MACROINVERTEBRATES REPORTED FROM THE LOWER YAMPA RIVER BASIN INCLUDING THE MINOR TRIBUTARIES

Taxa	Literature Source: Baily and Alberti 1952	Woodbury and Argyle 1963	Oblad 1969	Ames 1977	Annear 1980	Utah International 1981	Wu et al. 1982
Nematoda					X		
Oligochaeta					X		
Tubificidae							
Limnodrilus sp.						X	
Tubifex sp.						X	
Amphipoda							
Gammaridae							
Gammerus sp.					X		
Hydracarina					X		
Plecoptera	X						
Capniidae							
Capnia limata			X				
Capnia sp.				X			
Chloroperlidae							
Alloperla sp.				X			
Triznaka signata			X				
Leuctridae					X		
Nemouridae							
Malenka sp.					X		
Perlidae							
Calineuria californica			X				
Claassenia sabulosa		X	X	X			
Claassenia sp.					X		
Perlodidae					X		
Arcynopteryx signata			X				
Arcynopteryx sp.				X			
Cultus aestivalis			X				
Isogenoides colubrinus			X				
Isogenoides sp.					X		
Isogenus sp.				X			
Isoperla longiseta			X				
Isoperla patricia			X				
Isoperla sp.				X			
Pteronarcidae							
Pteronarcella badia				X			
Taeniopterygidae							
Brachyptera sp.				X			
Oemopteryx fosketti			X				
Taenionema pacifica			X				
Ephemeroptera							
Ametropodidae							
Ametropus albrighti				X			

(continued)

TABLE 5. (continued)

Taxa	Baily and Alberti 1952	Woodbury and Argyle 1963	Oblad 1969	Ames 1977	Annear 1980	Utah International 1981	Wu et al. 1982
		Literature Source					
Baetidae							
Baetis sp.		X		X	X		
Callibaetis sp.		X				X	
Dactylobaetis sp.					X		
Pseudocloeon turbidum		X					
Caenidae							
Brachycercus sp.		X					
Caenis sp.				X			
Ephemerellidae							
Ephemerella grandis				X			
Ephemerella inermis		X		X			
Ephemerella sp.					X		
Ephemeridae							
Ephemera simulans				X			
Heptageniidae							
Heptagenia eleqantula		X					
Heptagenia sp.				X	X		
Pseudiron sp.		X					
Rhithrogena sp.				X	X		
Rhithrogena undulata		X					
Leptophlebiidae							
Choroterpes albiannulata		X		X			
Choroterpes sp.					X		
Leptophlebia sp.				X			
Paraleptophlebia sp.				X			
Traverella albertana		X		X			
Traverella sp.					X		
Oligonuridae							
Lachlania powelli		X					
Lachlania saskatchewanensis					X		
Lachlania sp.					X		
Polymitarcidae							
Ephoron album		X		X			
Ephoron sp.					X		
Siphlonuridae							
Ameletus sp.				X			
Isonychia sicca		X					
Isonychia sp.					X		
Tricorythidae							
Tricorythodes minutus		X		X			
Tricorythodes sp.					X		
Odonata	X						
Coenagrionidae							
Ischnura sp.						X	
Comphidae					X		

(continued)

TABLE 5. (continued)

Taxa	Baily and Alberti 1952	Woodbury and Argyle 1963	Oblad 1969	Ames 1977	Annear 1980	Utah International 1981	Wu et al. 1982
		Literature Source					
Ophiogomphus severus		X					
Ophiogomphus sp.				X			
Hemiptera	X						
Corixidae		X		X			
Naucoridae							
Ambrysus mormon				X			
Veliidae							
Rhagovelia sp.				X			
Megaloptera							
Corydalidae					X		
Dysmicohermes crepusculus		X					
Trichoptera	X						
Brachycentridae							
Brachycentrus sp.		X		X	X		
Glossosomatidae							
Culoptila sp.					X		
Protoptila sp.				X			
Helicopsychidae							
Helicopsyche sp.				X	X		
Hydropsychidae					X		
Arctopsyche sp.				X			
Cheumatopsyche sp.				X			
Hydropsyche sp.		X		X			
Hydroptilidae							
Agraylea sp.				X			
Hydroptila sp.				X	X		
Leucotrichia sp.				X			
Mayatrichia sp.				X	X		
Neotrichia sp.					X		
Ochrotrichia sp.					X		
Orthotrichia sp.				X			
Leptoceridae							
Ceraclea sp.					X		
Leptocella sp.		X					
Oecetis sp.				X			
Triaenodes sp.				X			
Limnephilidae							
Hesperophylax sp.				X		X	
Polycentropodidae							
Neureclipsis sp.				X			
Polycentropus sp.				X			
Psychomyidae							
Psychomyia sp.				X			
Lepidoptera							
Pyralidae							

(continued)

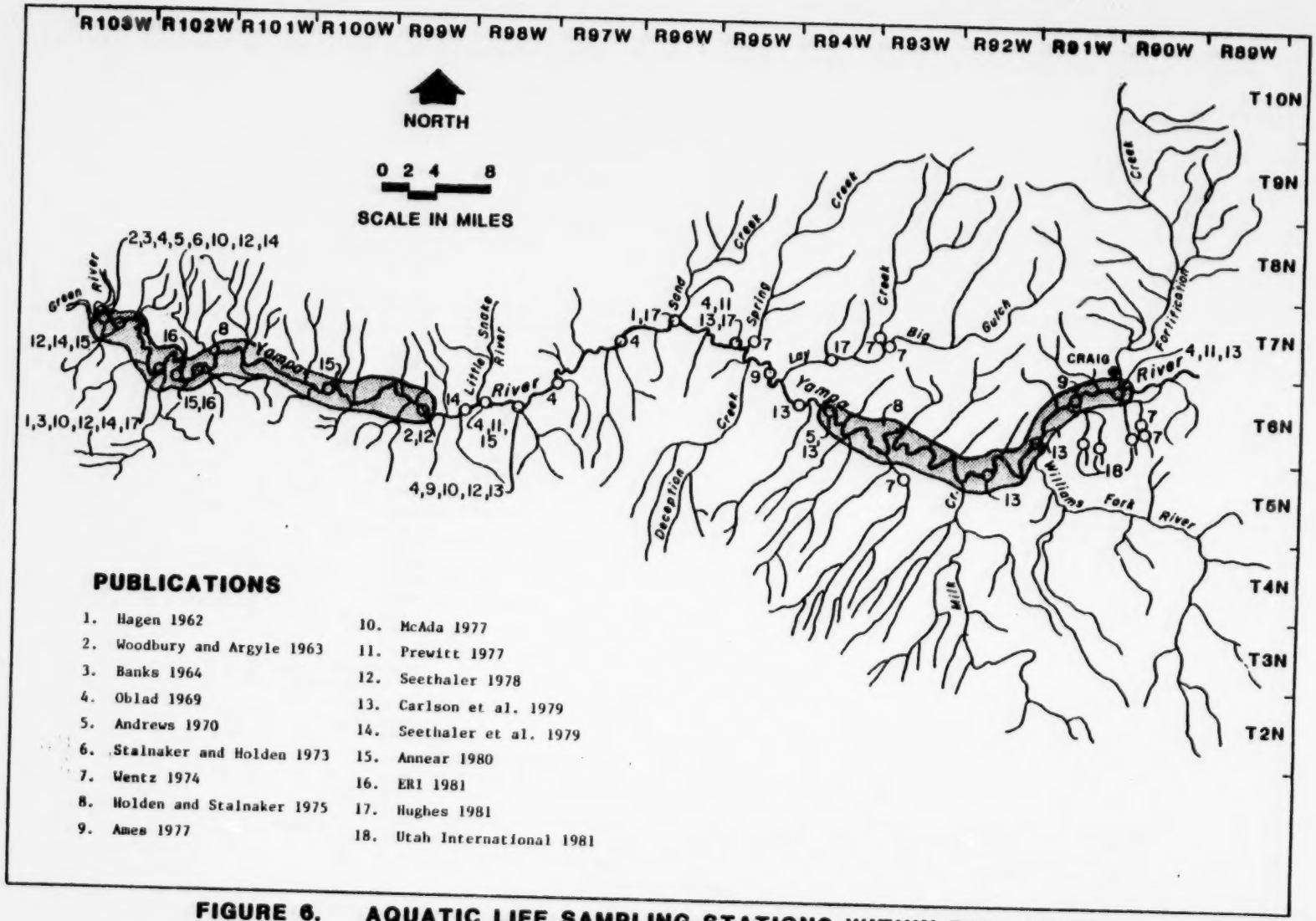
TABLE 5. (continued)

Taxa	Baily and Alberti 1952	Woodbury and Argyle 1963	Oblad 1969	Ames 1977	Annear 1980	Utah International 1981	Wu et al. 1982
			Literature Source				
Cataclysta sp.				X			
Paragyractis sp.					X		
Coleoptera	X						
Dryopidae							
Dryops sp.				X			
Dytiscidae						X	
Agabus sp.					X		
Deronectes sp.		X					
Eretes sp.				X			
Laccodytes sp.				X			
Elmidae					X		
Dubiraphia sp.				X			
Microcylloepus sp.				X			
Optioservus sp.				X			
Zaitzevia sp.				X			
Diptera	X						
Anthomyiidae							
Limnophora sp.						X	
Blepharoceridae							
Bibiocephala sp.					X		
Ceratopogonidae					X		
Palpomyia sp.		X		X			
Chironomidae				X	X		
Chironomus sp.				X			
Cricotopus sp.				X			
Cryptochironomus sp.				X			
Diamesa sp.				X			
Eukiefferiella sp.				X			
Micropsectra sp.				X			
Microtendipes sp.				X			
Monodiamesa sp.				X			
Orthocladius sp.				X			
Parachironomus sp.				X			
Paralauterborniella sp.				X			
Pentaneura sp.				X			
Polypedilum sp.				X			
Procladius sp.						X	
Pseudochironomus sp.				X			
Rheotanytarsus sp.				X			
Tribelos sp.				X		X	
Culicidae							
Culiseta sp.		X					
Empididae				X	X		
Rhagionidae							
Atherix variegata				X			

(continued)

TABLE 5. (continued)

Taxa	Literature Source: Baily and Alberti 1952	Woodbury and Argyle 1963	Oblad 1969	Ames 1977	Annear 1980	Utah International 1981	Wu et al. 1982
Simuliidae					X		
Simulium arcticum				X			
Simulium bivittatum				X			
Simulium sp.		X				X	
Tipulidae					X	X	
Hexatoma sp.				X			
Gastropoda							
Lymnaeidae							
Lymnaea elodes							X
Lymnaea sp.						X	
Physidae							
Aplexa hypnorum							X
Physa gyrina							X
Physa sp.						X	
Physa virgata							X
Planorbidae							
Gyraulus parvus							X
Gyraulus sp.						X	
Helisoma trivolvis							X
Promenetus exacuous							X
Ancylidae							
Ferrissia rivularis							X
Pelecypoda							
Sphaeriidae							
Musculium lacustre							X
Spaerium sp.						X	
Total number of taxa reported	6	25	12	76	40	15	9



PUBLICATIONS

1. Hagen 1962
2. Woodbury and Argyle 1963
3. Banks 1964
4. Oblad 1969
5. Andrews 1970
6. Stalnaker and Holden 1973
7. Wentz 1974
8. Holden and Stalnaker 1975
9. Ames 1977
10. McAda 1977
11. Prewitt 1977
12. Seethaler 1978
13. Carlson et al. 1979
14. Seethaler et al. 1979
15. Annear 1980
16. ERI 1981
17. Hughes 1981
18. Utah International 1981

FIGURE 6. AQUATIC LIFE SAMPLING STATIONS WITHIN THE LOWER YAMPA RIVER BASIN AND MINOR TRIBUTARIES.

Miller (1965) discussed the fishes of Dinosaur National Park, however, detailed sampling locality data were not included. This paper includes the first verified records for humpback chubs, Gila cypha, from the Yampa River.

Oblad (1969) summarized the distribution of the Yampa River basin stoneflies (Plecoptera). A total of 11 species was reported from 6 localities within the lower Yampa.

Utah State University personnel initiated fisheries collections in the Yampa River basin in 1968. Numerous publications (Stalnaker and Holden 1973; Holden and Stalnaker 1975a and b; McAda 1977; Seethaler 1978; Seethaler et al. 1979; McAda and Wydoski 1980) have resulted from these studies and 26 fish species (Table 4) have been reported to date. McAda (1977) and Seethaler (1978) provide major contributions on the life history, distribution, and habitat requirements of the razorback sucker and Colorado squawfish, respectively.

In 1975, Colorado State University personnel initiated a fish and aquatic macroinvertebrate baseline survey of the main stem of the Yampa River. (Ames 1977; Prewitt 1977; Carlson et al. 1979). These studies resulted in distributional information for 18 fish (Table 3) and 75 macroinvertebrate taxa (Table 5).

The CDOW initiated Colorado squawfish and humpback chub population and habitat monitoring programs in the lower Yampa River in 1977. Initially, a segment between Maybell and Sunbeam (Figure 5) was selected for detailed studies (Prewitt et al. 1978). Subsequently, the study area has been expanded to include the entire lower portion of the Yampa River main stem downstream from a point near the Milk Creek confluence (Figure 5). A series of progress reports (Prewitt et al. 1978; Wick et al. 1979, 1981, 1983, 1984; Haynes and Muth 1982; Haynes et al. 1983) as well as several short notes (Haynes and Muth 1981, Haynes et al. 1984) have documented the results of these studies to date. Detailed collection records and habitat affinities for 24 fish (Table 4) are included in these reports.

Smith et al. (1979) discussed the species relationships of the upper Colorado River basin Gila robusta complex. They concluded that roundtail, bonytail, and humpback chubs, are distinct species and that they maintain isolated, reproducing populations in large river ecosystems, such as in the Green, Colorado, and Yampa Rivers.

A detailed study of primary production, energy transport, and macroinvertebrate distribution within the lower portion of the Yampa River was conducted during 1978 and 1979 by Annear (1980). A total of 40 macroinvertebrate taxa (Table 5) was reported from the four collection localities (Figure 6). He concluded that the lower Yampa River exhibited physical and biological conditions similar to those predicted for a large order, undeveloped river.

ERI (1981) reported on a detailed habitat survey conducted at two locations (Figure 6) in the lower Yampa River during July 1981. Special efforts

were made to describe the physical habitat at each site as well as the fish present (Table 4). No discussion of the results was presented.

Hughes (1981) listed the available distribution records for the plains killifish in the Yampa River basin (Figure 6) and noted that this species appears to be expanding its range throughout the Colorado River basin.

Miller et al. (1982) presented the results of the USFWS Yampa River portion of the Colorado River basin fish survey which was initiated in 1979. The lower Yampa River was divided into eight strata, based on the homogenity of river segments (Figure 7). Sampling was conducted randomly within each segment. A total of 24 fish species was reportd (Table 4). In general, the total number of fish and the total number of species increased in an upstream direction. Exceptions occurred in canyon areas where the available habitat favored native species and reduced the total number of species by eliminating exotic taxa (Table 6).

Wu et al. (1982), in a survey of mollusks and macro-crustaceans in northwest Colorado, reported nine taxa (Table 5) from the lower Yampa River basin. They felt that additional collections were necessary to allow a realistic description of mollusc distribution within the region.

Utah International Inc. (1981) provided a limited discussion of the macroinvertebrates of several tributaries to the Yampa River south of Craig. A complete taxa list was not provided, but several taxa were mentioned in the discussion. These taxa are included in Table 5.

Aquatic Habitat

The aquatic habitat of the lower Yampa River basin consists of five basic types: large river, small permanent stream, small intermittent stream, stock pond, and spring/seepage areas. The large riverine habitat of the lower Yampa River has been well documented through CDOW and USFWS studies. The Yampa River between Elkhead Creek and Dinosaur National Monument meanders slowly through a low gradient agricultural valley. This flow pattern is briefly interrupted at two points: Juniper Mountain (river mile 88.7-91.0) and Cross Mountain (river mile 55.6-58.8) where the river has steepsided canyons with boulder/bedrock substrate. The Yampa River enters Dinosaur National Monument at river mile 48 and enters a steep-walled canyon with near-vertical walls which rise to 1,370 feet above river level at river mile 45. The upper canyon, from river mile 45 to river mile 20, is characterized by several long, flatwater sections interrupted by white water (produced by boulder fields from tributaries). At river mile 20, the Yampa River enters the Weber sandstone and the boulder/cobble substrate gradually includes increasing amounts of sand. With the exception of Warm Springs Rapid at river mile 4.1, this section of the lower Yampa River is relatively deep and slow-moving with many meanders (Miller et al. 1982).

The minor tributaries of the lower Yampa River are primarily intermittent streams. While several streams (Spring, Lay, Deception, and Sand Creeks) have

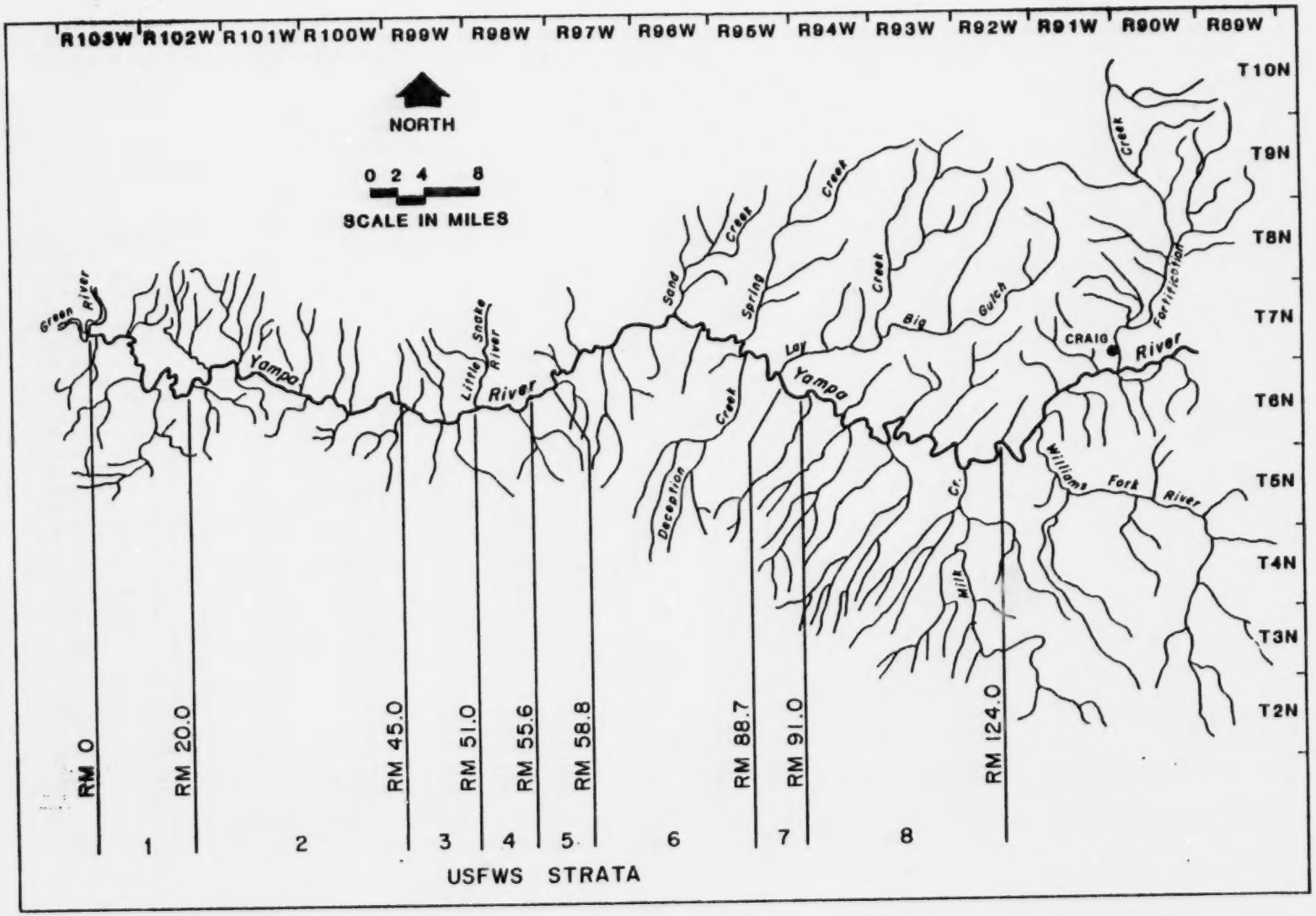


FIGURE 7. USFWS STREAM SEGMENTATION OF THE LOWER YAMPA RIVER.

TABLE 6. FISH DISTRIBUTION OF THE MAINSTEM LOWER YAMPA RIVER

Taxa	Stratum 1 RM 0-20	Stratum 2 RM 20-45	Stratum 3 RM 45-51	Stratum 4 RM 51-55.6	Stratum 5 RM 55.6-58.8	Stratum 6 RM 58.8-88.7	Stratum 7 RM 88.7-91.0	Stratum 8 RM 91.0-124.0	Rm 124.0
Mountain whitefish	X			X	X	X	X	X	X
Brown trout	X	X		X				X	X
Cutthroat trout	X					X	X		X
Rainbow trout	X	X				X	X	X	X
Northern pike				X	X		X	X	
Carp	X	X	X	X	X	X	X	X	X
Utah chub	X								
Bonytail chub	X								
Humpback chub	X	X	X						
Roundtail chub	X	X	X	X	X	X	X	X	X
Red shiner	X	X	X	X	X	X			
Sand shiner	X	X	X	X	X	X	X	X	
Fathead minnow	X	X	X	X	X	X	X	X	X
Colorado squawfish	X	X	X	X	X	X	X	X	X
Speckled dace	X	X	X	X	X	X	X	X	X
Redside shiner	X	X	X	X	X	X	X	X	X
Creek chub	X			X	X	X			
White sucker	X	X	X	X	X	X	X	X	X
Bluehead sucker	X	X	X	X	X	X	X	X	X
Flannelmouth sucker	X	X	X	X	X	X	X	X	X
Razorback sucker	X	X		X					
Channel catfish	X	X	X	X	X	X	X	X	
Black bullhead	X	X	X	X	X	X	X	X	
Plains killifish						X	X	X	
Green sunfish	X		X	X			X		X
Bluegill	X								
Largemouth bass	X								
Smallmouth bass						X	X		
Walleye	X								
Mottled sculpin	X	X	X	X	X	X	X	X	X

perennial discharges, nothing has been published on the available aquatic habitat within these streams.

The CDOH has established four aquatic life use classifications within the lower Yampa River basin (Figure 6). The reported macroinvertebrate distribution within these segments is found in Table 7.

LITTLE SNAKE RIVER BASIN

The Little Snake River, with a drainage area of more than 3,700 square miles, is the largest tributary to the Yampa River. Located along the Colorado-Wyoming border (Figure 8), the river falls within several political and administrative boundaries.

Hydrology

Stream gaging stations have been located at 19 different locations (Figure 9) throughout the Little Snake River basin, apparently in response to the potential coal development in the area (BLM 1983) and because the river crosses back and forth between Wyoming and Colorado which maintain separate streamflow records.

On the main stem of the Little Snake River, four gaging stations have been used to record streamflow information. These include the Little Snake River near Lily, Slater, and Battle Creek, Colorado, and Dixon, Wyoming (Station Nos. 0926000, 0925700, 09251500, and 0925300, respectively). The hydrographs from these gaging stations indicate that the Little Snake River is a perennial stream. The season of elevated streamflow occurs primarily in response to thunderstorms and generally begins in March and continues through July with peaks during May and June. The lower basin has a peak flow in May while higher flows in the upper basin occur in both May and June. The sustained elevated streamflow through May and June in the upper basin is probably a result of more intense precipitation at the higher elevations. The baseflow period on the Little Snake River extends from August through February. On the lower Snake River, the subtle increase in flow in September and October is probably a response to the end of the irrigation season. Approximately 2,000 acres of land are irrigated in the basins.

Several hydrogaphs illustrate the variability of streamflow in minor tributaries to the Little Snake River (Appendix C). The range in hydrograph values indicates that streamflow in the tributaries follows the same general patterns that were mentioned for the Little Snake River. Stations that show no increase in base flow in September and October (Battle Creek or North Fork of the Little Snake River) probably do not have irrigation operations present. The dual peak flow observed during May and June at many of the minor tributary stations is probably a result of snowmelt occurring at different periods from lower and higher elevational drainages.

TABLE: 7. AQUATIC MACROINVERTEBRATE DISTRIBUTION WITHIN CDOH AQUATIC LIFE USE CLASSIFICATIONS FOR THE LOWER YAMPA RIVER AND MINOR TRIBUTARIES

Taxa	Use Classification			
	Coldwater Class 1	Coldwater Class 2	Warmwater Class 1	Warmwater Class 2
Nematoda			X	
Oligochaeta			X	
Amphipoda				
Gammaridae				
Gammarus sp.			X	
Hydracarina			X	
Plecoptera				
Capniidae				
Capnia limata	X		X	
Capnia sp.	X		X	
Chloroperlidae				
Alloperla sp.	X		X	
Triznaka signata	X			
Leuctridae			X	
Nemouridae				
Malenka sp.			X	
Perlidae				
Calineuria californica	X		X	
Claassenia sabulosa	X		X	
Claassenia sp.			X	
Perlodidae			X	
Arcynopteryx signata			X	
Arcynopteryx sp.	X			
Cultus aestivalis			X	
Isogenoides colubrinus			X	
Isogenoides sp.			X	
Isogenus sp.	X		X	
Isoperla longiseta			X	
Isoperla patricia			X	
Isoperla sp.	X		X	
Pteronarcidae				
Pteronarcella badia	X			
Taeniopterygidae				
Brachyptera sp.	X		X	
Oemopteryx fosketti			X	
Taenionema pacifica	X		X	
Ephemeroptera				
Ametropodidae				
Ametropus albrighti			X	

(continued)

TABLE 7. (continued)

Taxa	Use Classification: Coldwater Class 1	Coldwater Class 2	Warmwater Class 1	Warmwater Class 2
Baetidae				
Baetis sp.	X		X	
Callibaetis sp.			X	
Dactylobaetis sp.			X	
Pseudocloeon turbidum			X	
Caenidae				
Brachycercus sp.			X	
Caenis sp.	X			
Ephemerellidae				
Ephemerella grandis	X			
Ephemerella inermis	X			
Ephemerella sp.			X	
Ephemeridae				
Ephemera simulans	X		X	
Heptageniidae				
Heptagenia elegantula			X	
Heptagenia sp.			X	
Pseudiron sp.			X	
Rhithrogena sp.	X		X	
Rhithrogena undulata			X	
Leptophlebiidae				
Choroterpes albiannulata	X		X	
Choroterpes sp.			X	
Leptophlebia sp.	X			
Paraleptophlebia sp.	X		X	
Traverella albertana	X		X	
Traverella sp.			X	
Oligognuridae				
Lachlania powelli			X	
Lachlania saskatchewanensis			X	
Lachlania sp.			X	
Polymitarcidae				
Ephoron album	X		X	
Ephoron sp.			X	
Siphlonuridae				
Ameletus sp.	X		X	
Isonychia sicca			X	
Isonychia sp.			X	
Tricorythidae				
Tricorythodes minutus	X		X	
Tricorythodes sp.			X	

(continued)

TABLE 7. (continued)

Taxa	Use Classification Coldwater Class 1	Coldwater Class 2	Warmwater Class 1	Warmwater Class 2
Odonata				
Gomphidae			X	
Ophiogomphus severus			X	
Ophiogomphus sp.	X		X	
Hemiptera				
Corixidae	X		X	
Naucouridae				
Ambrysus mormon	X		X	
Veliidae				
Rhagovelia sp.	X		X	
Megaloptera				
Corydalidae			X	
Dysmicohermes crepusculus			X	
Trichoptera				
Brachycentridae				
Brachycentrus sp.	X		X	
Glossosomatidae				
Culoptila sp.			X	
Protoptila sp.	X		X	
Helicopsychidae				
Helicopsyche sp.	X		X	
Hydropsychidae			X	
Arctopsyche sp.	X			
Cheumatopsyche sp.	X		X	
Hydropsyche sp.	X		X	
Hydroptilidae				
Agraylea sp.	X			
Hydroptila sp.	X		X	
Leucotrichia sp.	X		X	
Mayatrichia sp.			X	
Neotrichia sp.			X	
Ochrotrichia sp.			X	
Orthotrichia sp.			X	
Leptoceridae				
Ceraclea sp.			X	
Leptocella sp.			X	
Oecetis sp.	X		X	
Triaenodes sp.	X		X	
Limnephilidae				
Hesperophylax sp.	X			
Polycentropodidae				
Neureclipsis sp.			X	
Polycentropus sp.			X	

(continued)

TABLE 7. (continued)

Taxa	Use Classification Coldwater Class 1	Coldwater Class 2	Warmwater Class 1	Warmwater Class 2
Psychomyidae				
Psychomyia sp.	X		X	
Lepidoptera				
Pyralidae				
Cataclysta sp.	X		X	
Paragyractis sp.			X	
Coleoptera				
Dryopidae				
Dryops sp.	X			
Dytiscidae				
Agabus sp.			X	
Deronectes sp.			X	
Eretes sp.	X			
Laccodytes sp.			X	
Elmidae				
Dubiraphia sp.	X		X	
Microcylloepus sp.	X		X	
Optioservus sp.	X		X	
Zaitzevia sp.	X		X	
Diptera				
Blepharoceridae				
Bibiocephala sp.			X	
Ceratopogonidae			X	
Palpomyia sp.	X		X	
Chironomidae	X		X	
Chironomus sp.			X	
Cricotopus sp.	X		X	
Cryptochironomus sp.			X	
Diamesa sp.	X			
Eukiefferiella sp.	X		X	
Micropsectra sp.	X		X	
Microtendipes sp.	X		X	
Monodiamesa sp.	X		X	
Orthocladius sp.	X		X	
Parachironomus sp.	X		X	
Paralauterborniella sp.	X			
Pentaneura sp.	X		X	
Polypedilum sp.	X		X	
Pseudochironomus sp.	X			
Rheotanytarsus sp.	X		X	
Tribelos sp.			X	
Culicidae				
Culiseta sp.			X	

(continued)

TABLE 7. (continued)

Taxa	Use Classification: Coldwater Class 1	Coldwater Class 2	Warmwater Class 1	Warmwater Class 2
Empididae	X		X	
Rhagionidae				
Atherix variegata	X		X	
Simuliidae	X		X	
Simulium arcticum	X			
Simulium bivittatum	X			
Simulium sp.			X	
Tipulidae			X	
Hexatoma sp.	X		X	
Gastropoda				
Lymnaeidae				
Lymnaea elodes	X	X		X
Physidae				
Aplexa hypnorum	X			
Physa gyrina		X		X
Physa virgata			X	
Planorbidae				
Gyraulus parvus				X
Helisoma trivolvis		X		
Promenetus exacuous	X			
Ancylidae				
Ferrissia rivularis			X	
Pelecypoda				
Sphaeriidae				
Musculium lacustre		X		

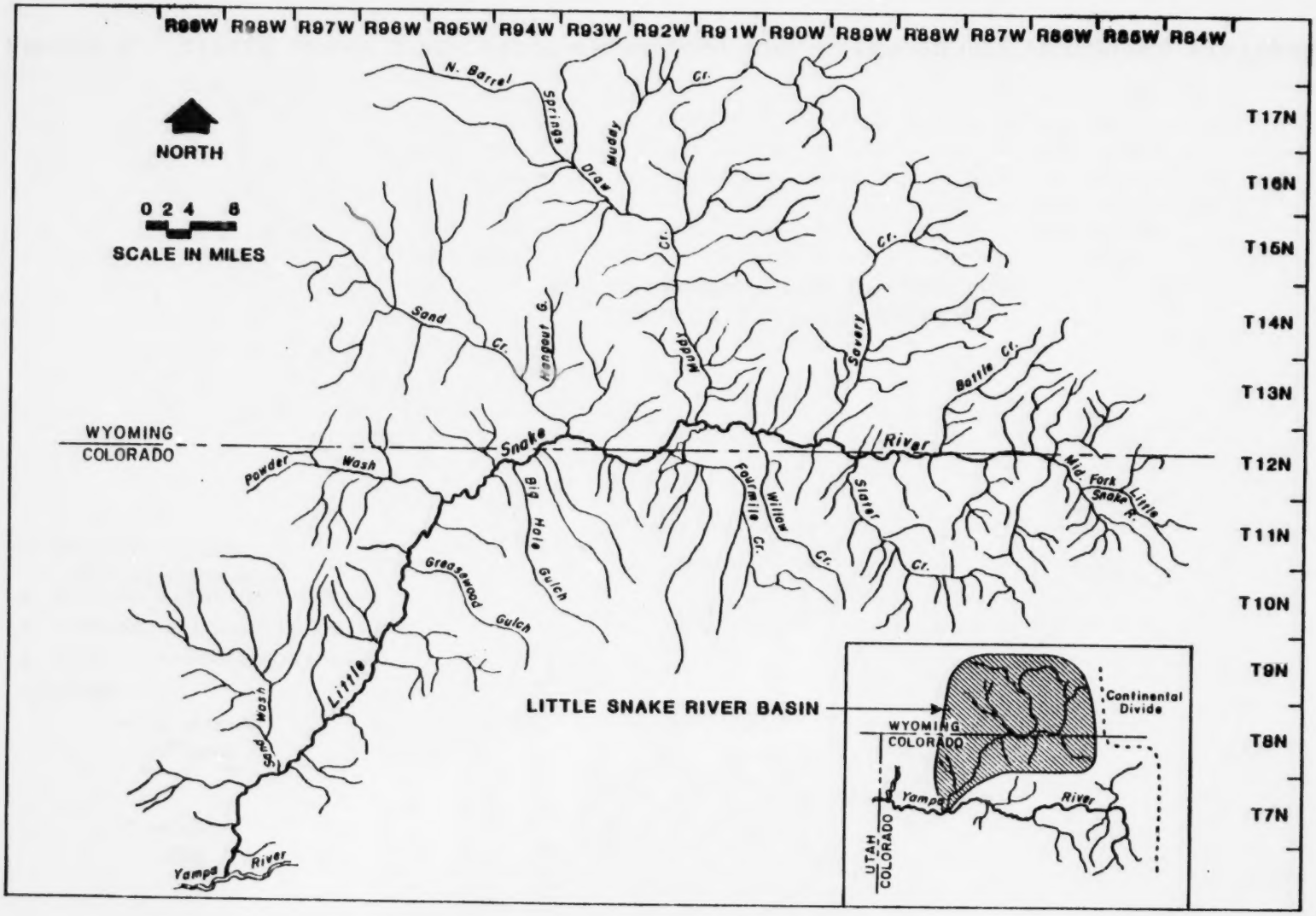


FIGURE 8. LITTLE SNAKE RIVER BASIN.

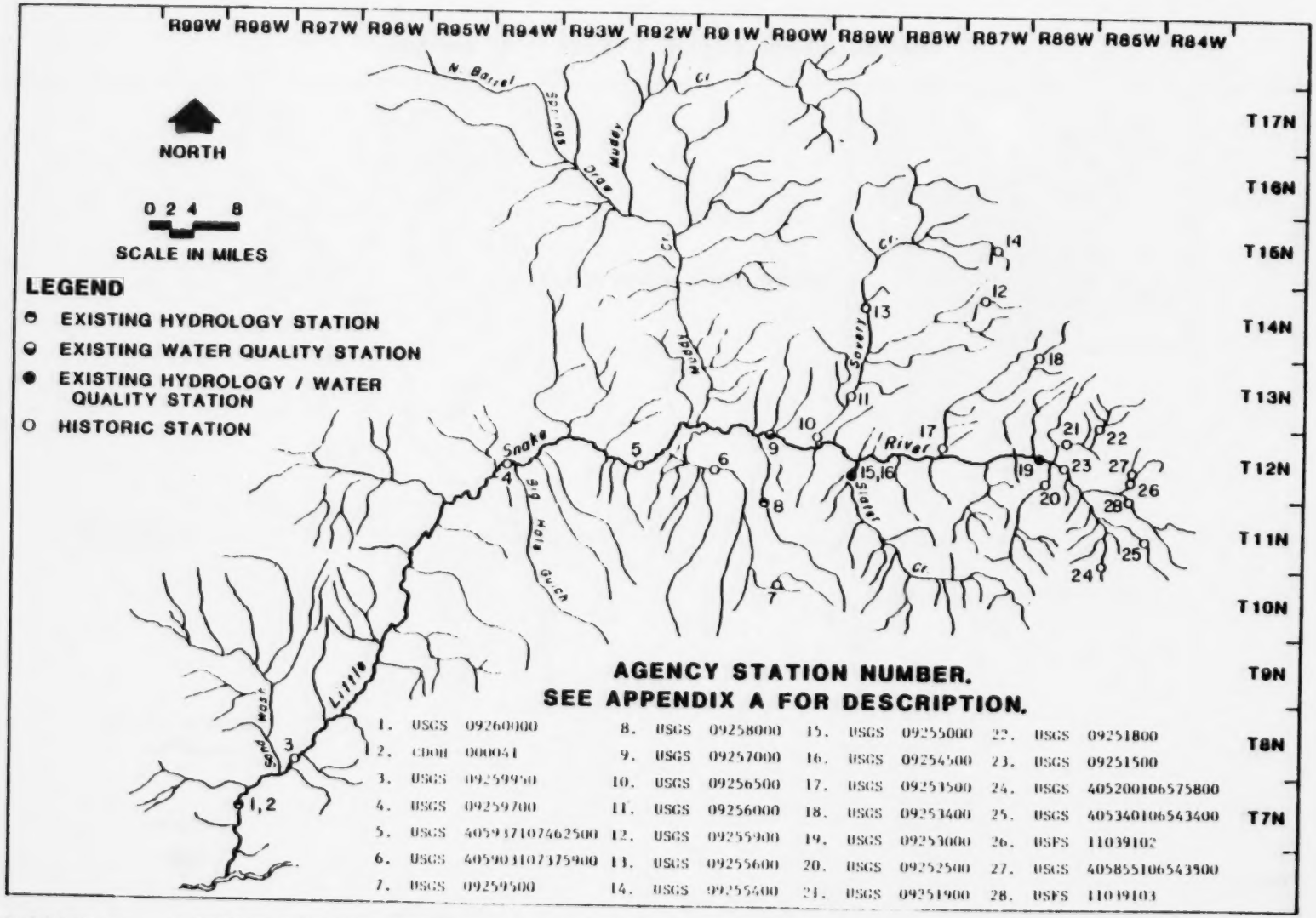


FIGURE 9. LITTLE SNAKE RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

Water Quality

Recent long-term, water quality data are available at only two locations (Station Nos. 0926000 and 09259700) in the Little Snake River basin (Figure 9). The majority of the data are from the station near the Yampa River confluence (Station No. 0926000).

The CDOH and WWQD have divided the Little Snake River basin into several segments, based on political, biological, and water quality criteria. The State of Wyoming designates stream classifications based on the species of fish which inhabitat the water body in question (Figures 10 and 11). The State of Colorado designates stream use classifications based on biotic and nonbiotic parameters and these use classifications include several designations not included by Wyoming.

The WDEQ conducted a water quality and biological sampling program along Haggarty Creek near the Ferris-Haggarty Mine in 1977 (Chervick and Harp 1977). Haggarty Creek is a tributary to West Battle Creek and has received mine discharge since the late 1800's. Elevated copper concentrations, up to 3.7 mg/l, resulted in the elimination of fish downstream from the mine.

The Wyoming Water Development Commission (1980) summarized the available water quality data within the Wyoming portion of the Little Snake River basin. They concluded that the water quality of the Little Snake River and its major tributaries was suitable to rear trout, with only occasional elevated dissolved salt values occurring at the Little Snake near the Baggs station. They also cited the Haggarty Creek copper contamination.

Wentz and Steele (1980), in a water quality analysis of the entire Yampa River basin, indicated that there were no significant water quality alterations within the Little Snake River basin between 1951 and 1975. No areas of degraded water quality were noted in the Little Snake River basin.

The 1978 through 1983 data analysis (Appendix D) indicates that values for all analyzed parameters, with the exceptions of dissolved oxygen, pH and hardness, are higher in the lower portion of the Little Snake River than at adjacent stations on the Yampa River. Andrews (1978) noted a similar condition, with the Little Snake River contributing almost 70 percent of the total Yampa River basin sediment load but less than 30 percent of the total Yampa River discharge. Parameters for which 1978 through 1983 concentrations exceeded CDOH numeric standards included dissolved oxygen and iron.

Aquatic Life

Aquatic life surveys within the Little Snake River basin have been conducted primarily by CDOW and WGFD personnel. Several reports have been written (Table 8) but the majority of the detailed data is found in the files of the respective fishery divisions.

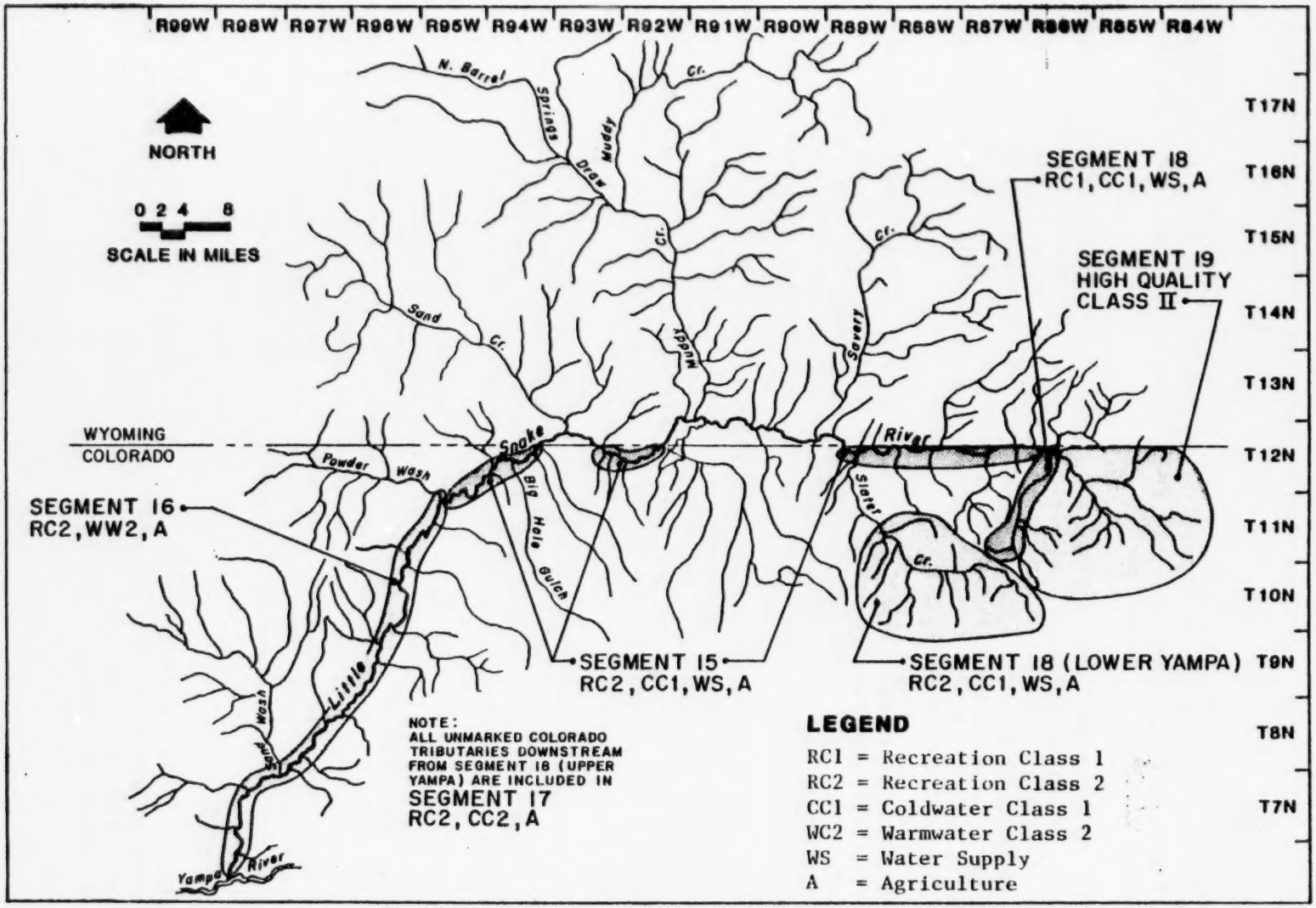


FIGURE 10. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATION WITHIN THE LITTLE SNAKE RIVER BASIN.

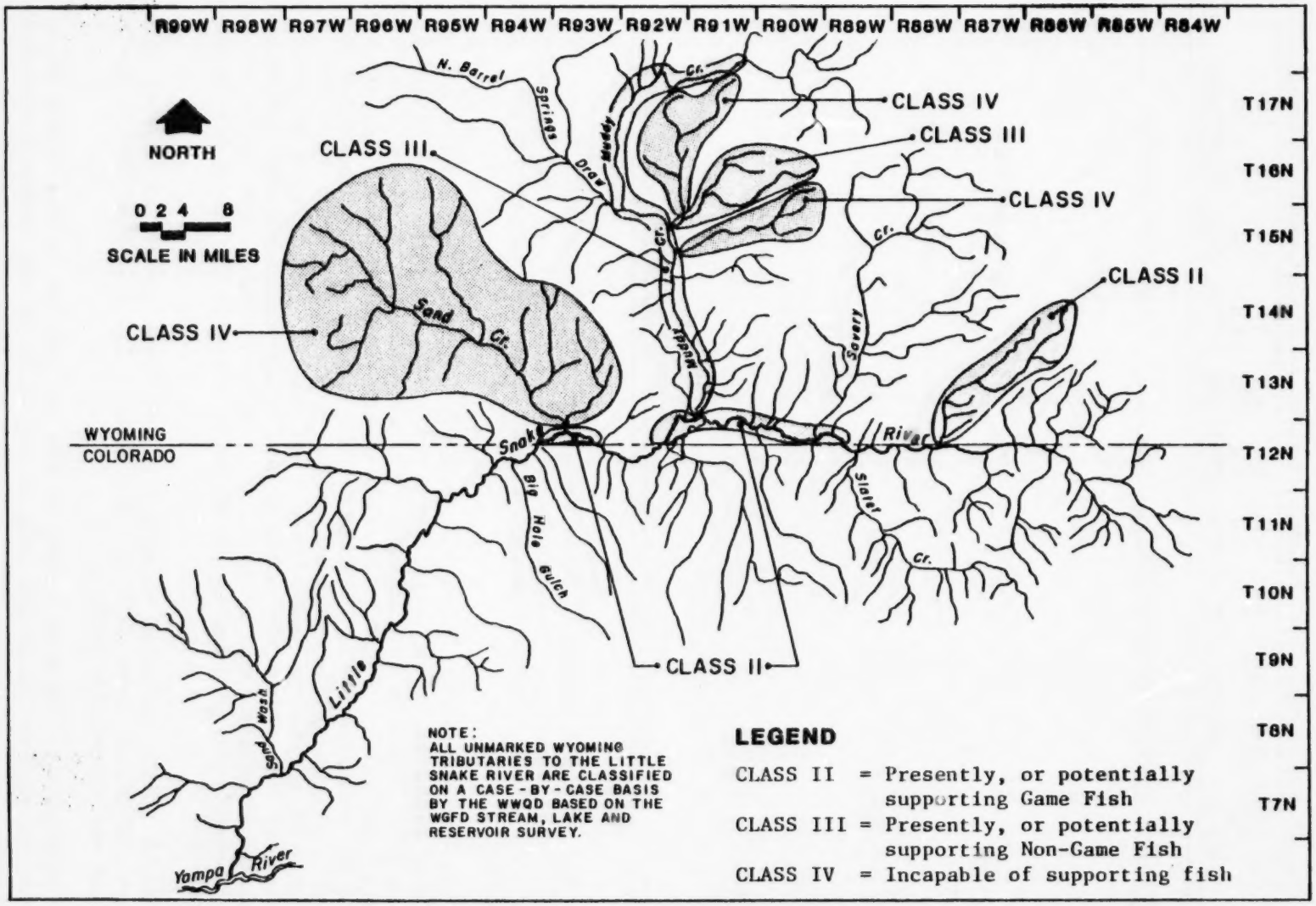


FIGURE 11. WDEQ WATER QUALITY DIVISION STREAM SEGMENTATION AND CLASSIFICATION WITHIN THE LITTLE SNAKE RIVER BASIN.

TABLE 8 . AQUATIC LIFE STUDIES WITHIN THE LITTLE SNAKE RIVER BASIN

Periphyton	Macroinvertebrates	Fish	Literature Source
		X	Baily and Alberti 1952
		X	Klein 1957
	X	X	Eiserman 1958
	X		Oblad 1969
		X	Baxter and Simon 1970
		X	Wernsman 1973
	X		Wentz, 1974
		X	Holden and Stalnaker 1975a
		X	Binns 1977a
	X	X	Binns 1977b
	X	X	Chervick and Harp 1977
		X	WGFD 1977
		X	Seethaler 1978
		X	Binns 1979
		X	Miller 1980
		X	Quinlan 1980
		X	Miller et al. 1982
		X	WGFD field notes
		X	CDOW date files

CDOW personnel initiated field surveys in 1951 (Baily and Alberti 1952), with limited collections being conducted near the mouth of the Little Snake River (Figure 12). Only the black bullhead (Table 9) was reported from this locality.

The earliest WGFD collections (Wyoming Game and Fish Department 1984) were also conducted in the early 1950's. The WGFD has reported a total of 20 fish species (Table 9) from numerous localities within the Little Snake River basin (Figure 13). The initial WGFD report (Eiserman 1958) was directed toward the documentation of the existing fish populations throughout the basin (Figure 12). Special emphasis was placed on the Savery Creek basin and the main stem of the Little Snake River. Eiserman also included a macroinvertebrate taxa list (Table 10), although the report did not provide information on macroinvertebrate sampling locations. Eiserman noted that siltation was the limiting factor to salmonid production in the majority of the Little Snake River basin.

Klein (1957) conducted a whitefish and trout census at several sites (Figure 12) in the upper Little Snake basin. The only nonsalmonid species reported was the mottled sculpin.

Oblad (1969), in his survey of the stoneflies of the Yampa River, reported 12 species (Table 10) from 3 localities in the upper Little Snake River basin. All collection sites were within Colorado (Figure 12).

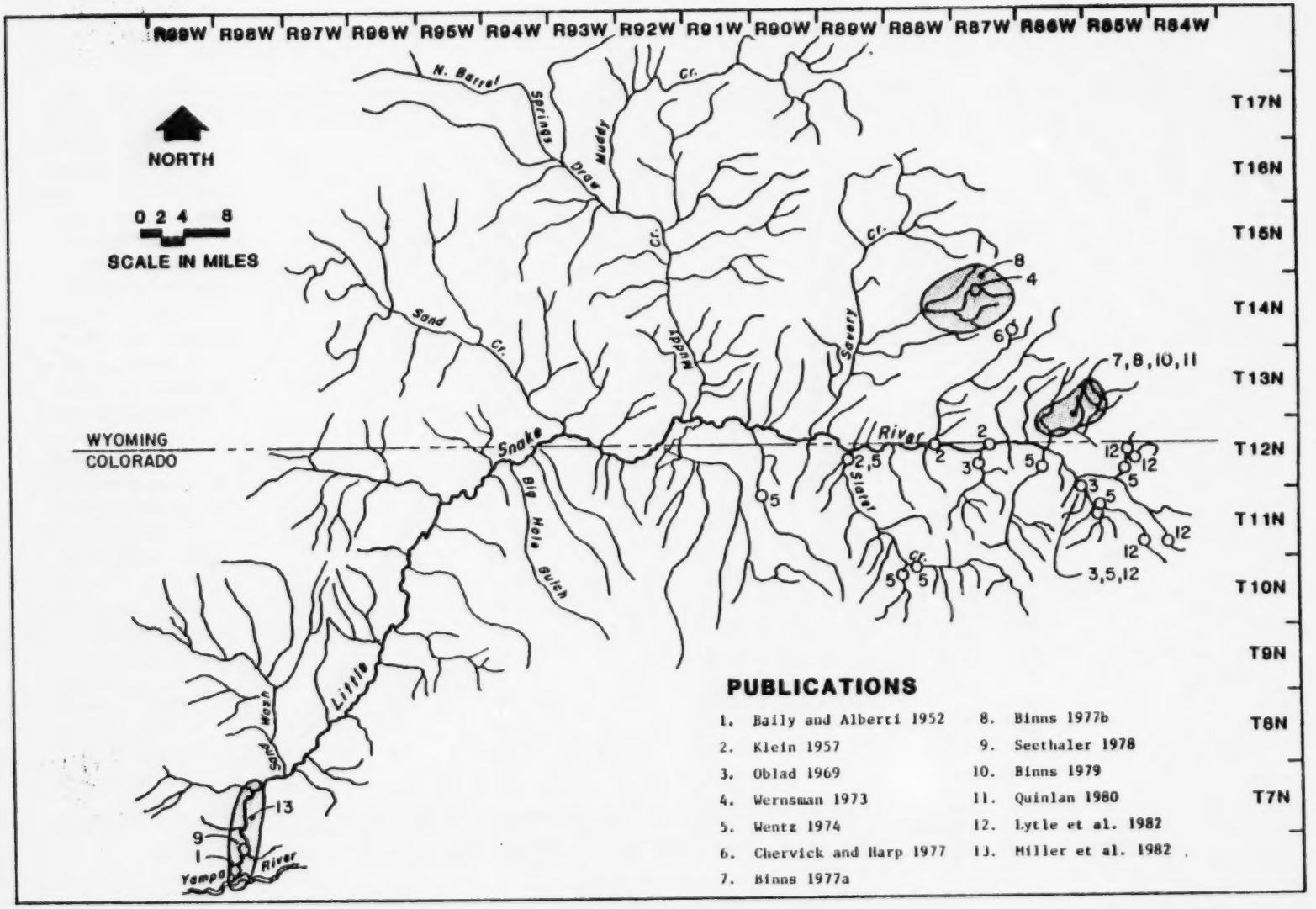


FIGURE 12. AQUATIC LIFE SAMPLING STATIONS WITHIN THE LITTLE SNAKE RIVER BASIN.

TABLE 9. FISH REPORTED FROM THE LITTLE SNAKE RIVER BASIN

Taxa	Literature Source: Baily and Alberti 1952	Klein 1957	Eiserman 1958	Baxter and Simon 1970	Wernsman 1973	Holden and Stalnaker 1965a	Binns 1977a	WGFD 1977	Seethaler 1978
Mountain whitefish		X	X	X				X	
Brook Trout			X					X	
Brown trout		X	X					X	
Colorado cutthroat trout			X		X		X	X	
Cutthroat trout			X					X	
Rainbow trout		X	X					X	
Carp				X					
Roundtail chub			X	X		X		X	
Red shiner									
Sand shiner									
Fathead minnow						X			
Colorado squawfish									X
Speckled dace			X	X		X		X	
Redside shiner			X	X		X		X	
Creek chub			X	X				X	
Longnose sucker									
White sucker			X	X				X	
Bluehead sucker			X	X		X		X	
Flannelmouth sucker			X	X		X		X	
Mountain sucker			X	X				X	
Channel catfish			X						
Black bullhead	X								
Green sunfish									
Mottled sculpin		X	X	X				X	

(continued)

TABLE 9. (continued)

Taxa	Literature Source: Binns 1979	Miller 1980	Quinlan 1980	Lytle et al. 1982	Miller et al. 1982	WGFD Field Notes	CDOW Data Files
Mountain whitefish		X				X	X
Brook trout		X		X		X	X
Brown trout		X				X	
Colorado cutthroat trout	X	X	X			X	
Cutthroat trout						X	X
Rainbow trout		X				X	X
Carp		X			X	X	
Roundtail chub					X	X	X
Red shiner					X		
Sand shiner					X		
Fathead minnow					X	X	
Colorado squawfish					X	X	
Speckled dace		X			X	X	X
Redside shiner		X			X	X	
Creek chub		X				X	X
Longnose sucker						X	
White sucker		X			X	X	X
Bluehead sucker					X	X	X
Flannelmouth sucker		X			X	X	X
Mountain sucker		X				X	
Channel catfish					X	X	
Black bullhead							
Green sunfish					X		
Mottled sculpin		X	X			X	X

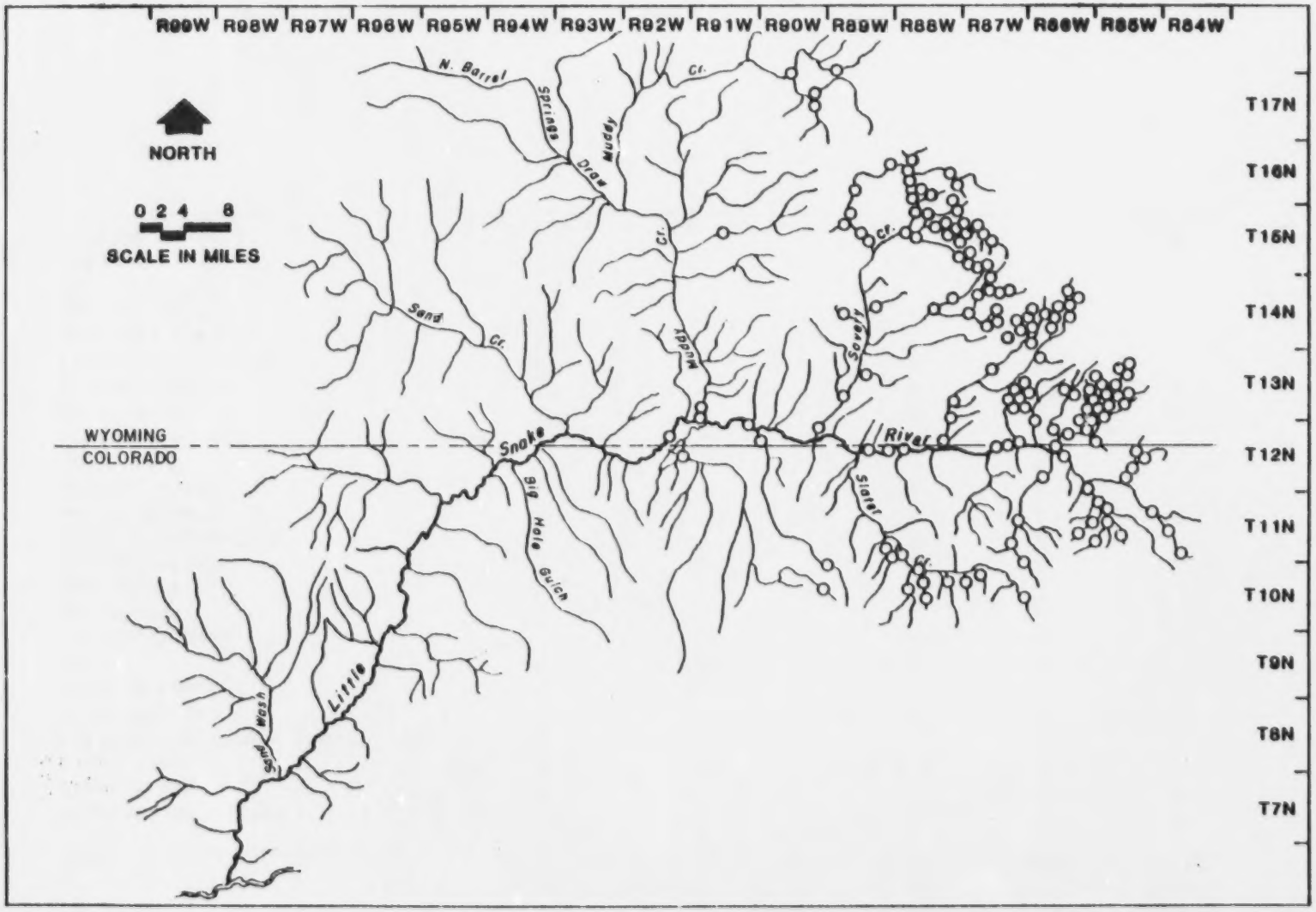


FIGURE 13. CDOW AND WGFD AQUATIC LIFE SAMPLING STATIONS WITHIN THE LITTLE SNAKE RIVER BASIN.

TABLE 10. AQUATIC MACROINVERTEBRATES REPORTED FROM THE LITTLE SNAKE RIVER BASIN

Taxa	Literature Source: Eiserman 1958	Oblad 1969	Wentz 1974	Binns 1977b	Chervick and Harp 1977
Oligochaeta				X	
Hirudinea	X			X	
Hydracarina	X		X	X	
Plecoptera	X		X		
Chloroperlidae					
Alloperla sp.				X	X
Suwallia lineosa		X			
Suwallia pallidula		X			
Sweltsa coloradensis		X			
Triznaka signata		X			
Leuctridae					
Paraleuctra sara		X			
Nemouridae					
Nemoura sp.				X	
Podmosta decepta		X			
Podmosta delicatula		X			
Perlidae					
Acroneuria sp.				X	
Calineuria californica		X			
Claassenia sp.				X	
Hesperoperla pacifica					X
Perlodidae					
Arcynopteryx parallela		X			
Isoperla patricia		X			
Isoperla sp.					X
Pteronarcidae					
Pteronarcella badia		X			
Pteronarcella sp.				X	
Pteronarcys californica		X			
Ephemeroptera	X		X		
Baetidae					
Baetis sp.				X	X
Ephemerellidae					
Ephemerella sp.				X	X
Heptageniidae					
Cinygmula sp.				X	
Epeorus sp.				X	
Rhithrogena sp.				X	
Leptophlebiidae					
Paraleptophlebia sp.				X	X
Siphlonuridae					
Ameletus sp.				X	

(continued)

TABLE 10. (continued)

Taxa	Literature Source: Eiserman 1958	Oblad 1969	Wentz 1974	Binns 1977b	Chervick and Harp 1977
Siphlonurus sp.					X
Odonata	X				
Hemiptera	X				
Trichoptera	X		X		
Brachycentridae					
Brachycentrus sp.				X	
Glossosomatidae					
Glossosoma sp.				X	
Hydropsychidae				X	
Arctopsyche sp.				X	X
Diplectrona sp.				X	
Hydropsyche sp.				X	
Parapsyche sp.				X	
Hydroptilidae					
Hydroptila sp.				X	
Lepidostomatidae					
Lepidostoma sp.				X	
Limnephilidae				X	
Philopotamidae				X	
Chimarra sp.				X	
Psychomyidae					
Psychomyia sp.				X	
Rhyacophilidae					
Rhyacophila sp.				X	X
Coleoptera	X		X		
Elmidae				X	
Diptera	X				
Anthomyiidae				X	
Chironomidae	X		X	X	X
Psychodidae					
Maruina lanceolata				X	
Rhagionidae					
Atherix sp.				X	
Simuliidae			X	X	X
Tipulidae				X	
Gastropoda			X		
Physidae					
Physa sp.	X				
Pelecypoda					
Sphaeriidae					
Pisidium sp.	X				
Total number of taxa reported	12	12	8	35	12

Baxter and Simon (1970) listed 11 species of fish from the Little Snake River basin. Their distribution records were based on WGFD collections and detailed locality data were not provided.

Wernsman (1973) determined that the cutthroat trout of Douglas Creek, a tributary to Big Sandstone Creek in the Savery Creek basin, were pure Colorado cutthroat trout. No further discussion of Little Snake River basin cutthroat trout populations was included.

Wentz (1974) sampled macroinvertebrates at eight sites (Figure 12) within the upper portion of the Little Snake. The identifications were made to the order and family levels (Table 10).

Holden and Stalnaker (1975a) listed six fish species from the lower portion of the Little Snake River (Table 9). Their collections were made at several points within the segment between the state line and the Yampa River confluence, but detailed sampling localities were not provided. They noted that while the Little Snake River, because of its small size, did not support the large river species typical of the Yampa River, it was important to the maintenance of the Yampa River's large size and flow regime.

In the mid 1970's, the WGFD initiated detailed surveys of several drainages within the upper portion of the Little Snake River basin. These surveys were in response to the proposed expansion of Cheyenne's Phase II water development project (Binns 1977a, 1979; Miller 1980), the BLM's proposed coal lease development program (WGFD 1977) and the existence of Colorado cutthroat trout within the basin (Binns 1977b; Quinlan 1980). The majority of the surveys were conducted, and are continuing today, in the Big Sandstone drainage of Savery Creek and the North Fork of the Little Snake River basin.

In a water quality assessment of mining-related impacts on Haggarty Creek, Chervick and Harp (1977) provided a brief list of the macroinvertebrates present (Table 10). They noted that elevated dissolved copper levels limited the aquatic life throughout the lower, affected portion of Haggerty Creek.

Seethaler (1978) reported on the distribution of Colorado squawfish in the Little Snake River basin. He noted historic collections as far as 25 kilometers upstream from the Yampa River confluence. The WGFD field notes contain a record for a Colorado squawfish collected 13 August 1959 at Dixon, Wyoming that was not included in Seethaler's extensive literature review. If this record is valid, it would extend the historic range of the squawfish nearly 100 miles further upstream on the Little Snake River than is currently reported.

The CDOW conducted Colorado cutthroat trout surveys in the Little Snake River basin in 1981 (Lytle et al. 1982). Five streams (Figure 12) which had the potential to contain remnant Colorado cutthroat trout populations were sampled. Only brook trout were collected.

Miller et al. (1982) conducted fish sampling within the lower 8 miles of the Little Snake in conjunction with the USFWS survey of the Yampa River. A total of 13 fish species was collected (Table 9). Miller noted that a smaller percentage of exotic fish occurred in the Little Snake River than in adjacent portions of the Yampa.

The CDOW has conducted fish population surveys at numerous locations within the upper portion of the Little Snake River basin (Figure 13). A total of 11 fish species has been reported (Table 7). This number is probably low because the majority of the collections listed suckers and minnows but did not provide any further identification. Reported fish distribution within the Little Snake River basin is presented in Figure 14.

Aquatic Habitat

The Little Snake River, with headwaters along the Continental Divide in Colorado and Wyoming, has the widest range of habitat-types of all of the segments discussed in this report. High mountain lakes and high gradient, rubble-substrate streams are found throughout the headwater areas. The warm water/cold water transitional area of the Little Snake River occurs in the vicinity of Baggs, Wyoming. The tributaries of the lower portion of the Little Snake River are primarily intermittent. The only published habitat information within the Little Snake River basin is included in the WGFD publications on the headwaters of the North Fork of the Little Snake River and the Savery Creek basins. The streams in these areas are typical high elevation mountain streams.

Both the CDOH and WWQD have classified portions of the Little Snake basin for aquatic life uses (Figures 10 and 11). Aquatic macroinvertebrates reported from the use classifications are listed in Table 11.

MILK CREEK

Milk Creek basin drains about 430 square miles in a northerly direction to its confluence with the Yampa River approximately 10 miles downstream from the confluence of the Yampa and Williams Fork Rivers (Figure 15).

Hydrology

Six gaging stations (Figure 16) have been located on minor tributaries within the Milk Creek basin primarily to monitor streamflow effects from the Colowyo Coal Mine (Good Springs drainage basin) and other potential coal development in the basin (Bureau of Land Management, 1983). These gaging stations include: Milk Creek near Thornburgh, Colorado, Good Spring Creek at Axial, Colorado, Wilson Creek above Taylor Creek near Axial, Colorado, Taylor Creek at mouth near Axial, Colorado, Wilson Creek near Axial, Colorado, and Judd Creek near Axial, Colorado (Station Nos. 09250000, 09250400, 09250507, 09250510, 09250600, and 0925061, respectively). Three of the six gaging stations have been discontinued (Station Nos. 09250400, 09250600, and 09250610). Irrigation of approximately 1,300 acre occurs in the Milk Creek basin.

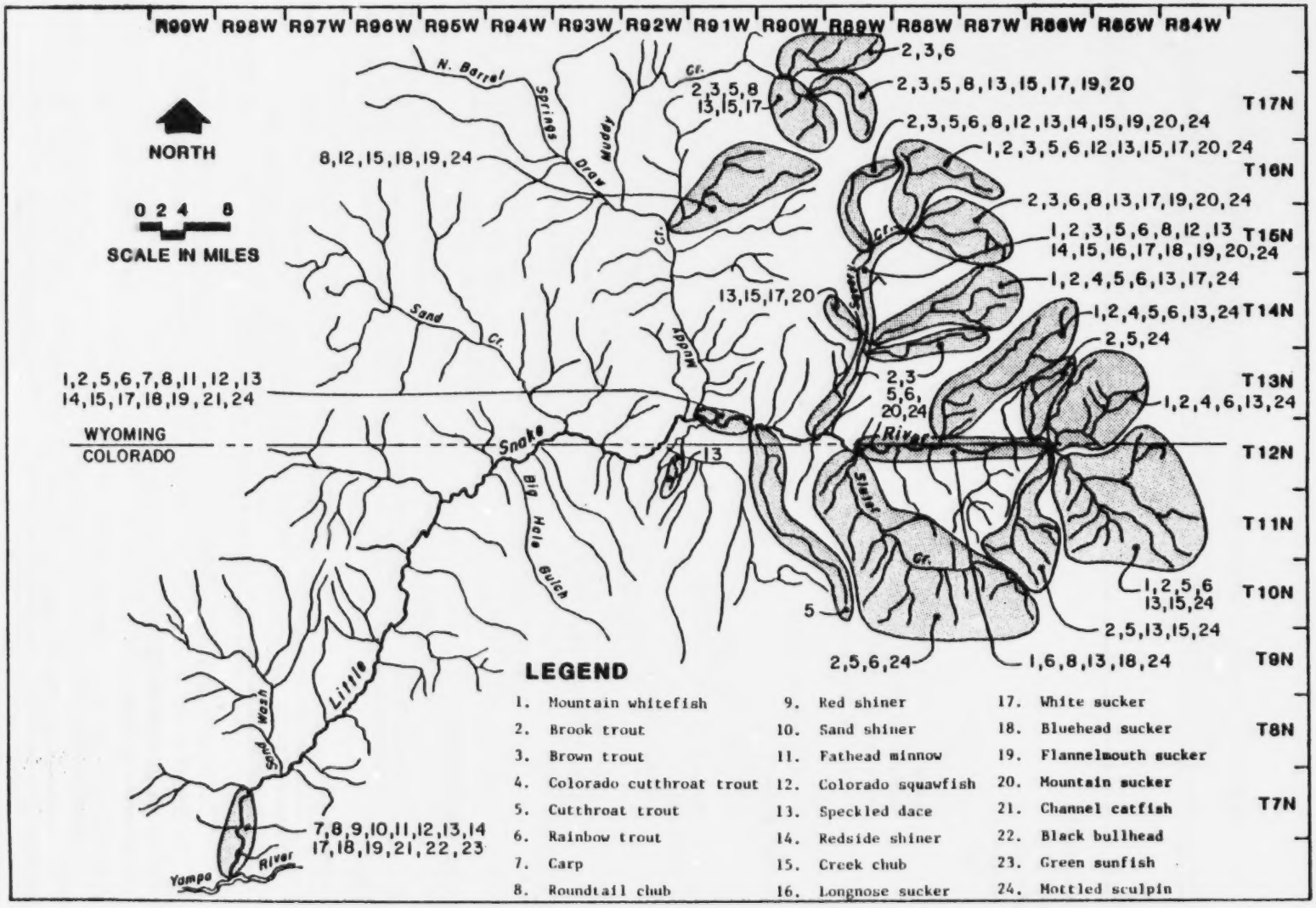


FIGURE 14. FISH DISTRIBUTION WITHIN THE LITTLE SNAKE RIVER BASIN.

TABLE 11. LITTLE SNAKE RIVER MACROINVERTEBRATE DISTRIBUTION WITHIN CDOH AND WWQD AQUATIC LIFE USE CLASSIFICATIONS

Taxa	Use Classification: High Quality Class 2	Coldwater Class 1	Unclassified
Oligochaeta			X
Hirudinea			X
Hydracarina			X
Plecoptera			
Chloroperlidae			
Alloperla sp.			X
Suwallia lineosa	X	X	
Suwallia pallidula	X	X	
Sweltsa coloradensis	X	X	
Triznaka signata		X	
Leuctridae			
Paraleuctra sara	X		
Nemouridae			
Nemoura sp.			X
Podmosta decepta	X		
Podmosta delicatula	X	X	
Perlidae			
Acroneuria sp.			X
Calineuria californica		X	
Claassenia sp.			X
Hesperoperla pacifica		X	
Perlodidae			
Arcynopteryx parallela		X	
Isoperla patricia		X	
Isoperla sp.			X
Pteronarcidae			
Pteronarcella badia		X	
Pteronarcella sp.			X
Pteronarcys californica		X	
Ephemeroptera			
Baetidae			
Baetis sp.			X
Ephemerellidae			
Ephemerella sp.			X
Heptageniidae			
Cinygmula sp.			X
Epeorus sp.			X
Rhithrogena sp.			X
Leptophlebiidae			
Paraleptophlebia sp.			X
Siphlonuridae			
Ameletus sp.			X

(continued)

TABLE 11. (continued)

Taxa	Use Classification: High Quality Class 2	Coldwater Class 1	Unclassified
Trichoptera			
Brachycentridae			
Brachycentrus sp.			X
Glossosomatidae			
Glossosoma sp.			X
Hydropsychidae			
Arctopsyche sp.			X
Diplectrona sp.			X
Hydropsyche sp.			X
Parapsyche sp.			X
Hydroptilidae			
Hydroptila sp.			X
Lepidostomatidae			
Lepidostoma sp.			X
Limnephilidae			X
Philopotamidae			
Chimarra sp.			X
Psychomyidae			
Psychomyia sp.			X
Rhyacophilidae			
Rhyacophila sp.			X
Coleoptera			
Elmidae			X
Diptera			
Anthomyiidae			X
Chironomidae			X
Psychodidae			
Maruina lanceolata			X
Rhagionidae			
Atherix sp.			X
Simuliidae			X
Tipulidae			X

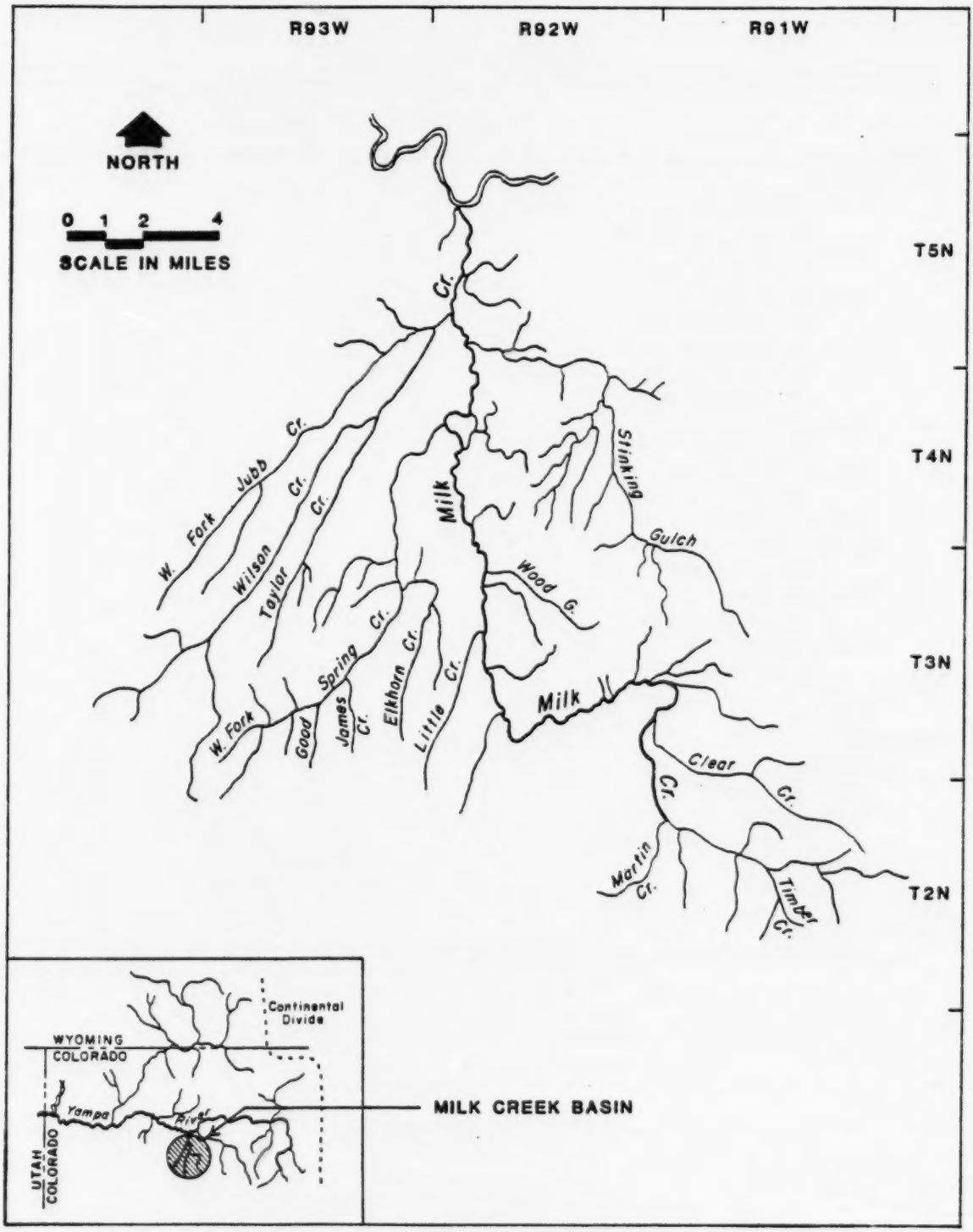
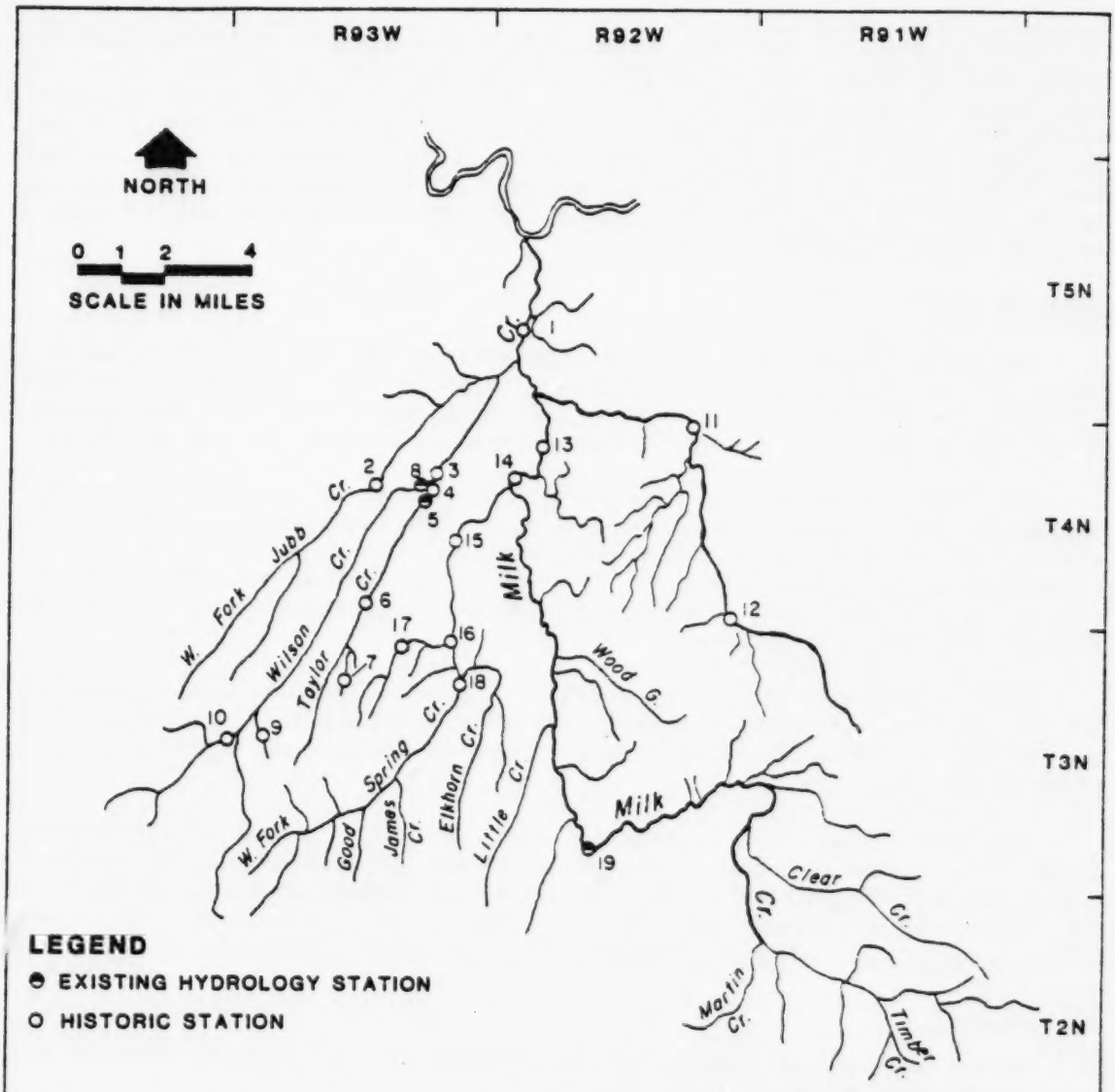


FIGURE 15. MILK CREEK BASIN.



AGENCY STATION NUMBER. SEE APPENDIX A FOR DESCRIPTION.

1. USGS 402134107453100	8. USGS 09250507	14. USGS 09250500
2. USGS 09250610	9. USGS 401348107520200	15. USGS 09250400
3. USGS 09250600	10. USGS 401348107530200	16. USGS 401439107470800
4. USGS 401851107475700	11. USGS 402005107411900	17. USGS 401542107431300
5. USGS 09250510	12. USGS 401601107395300	18. USGS 401544107471800
6. USGS 401623107493400	13. USGS 401948107443600	19. USGS 09250000
7. USGS 401452107500600		

FIGURE 16. MILK CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

Hydrographs for the Milk Creek basin (Appendix C) indicate that Milk Creek, Wilson Creek, and Taylor Creek are perennial streams, while Jubb Creek and Taylor Creek periodically dry up. The period of increased streamflow occurs from March/April through June/July, with peak flow occurring in May. The single peak flow in these basins indicates a response to early snowmelt from these lower elevation basins. Baseflow is sustained at a very low rate in the tributary drainages, with periodic depletions of ground water discharge in Jubb Creek and Taylor Creek.

Water Quality

The 1978 through 1983 water quality summary for the Milk Creek basin is based on data from three localities (Station Nos. 09250510, 09250600, 09250610) on Milk Creek tributaries. All three gages have been discontinued. Recent water quality data for the main stem of Milk Creek are not available.

The CDOH has classified Milk Creek basin water as suitable for class 2 recreation and agricultural use (Figure 17). The lower tributaries have been classified as warm water class 2 streams and the upper portion has been classified as cold water class 2. Numeric standards have been developed only for DO, pH and coliforms. These standards were not exceeded during the 1978 through 1983 sampling period.

Wentz and Steele (1980) indicated that unknown factors, possibly related to oil production, caused elevated levels of cadmium, lead, selenium, iron, and manganese within Stinking Creek. Iron and manganese exceeded drinking water standards.

Turk and Parker (1982) analyzed major and minor stream constituents at three sites within the Milk Creek basin (Figure 17) and developed regression equations and constants for ion concentration versus specific conductance. They concluded that water quality alterations, as a result of coal mining within a basin, are primarily reflected by increased sulfate concentrations.

Aquatic Life

Only four studies containing information on the aquatic life of Milk Creek basin were located (Table 12).

TABLE 12. AQUATIC LIFE STUDIES WITHIN THE MILK CREEK BASIN

Periphyton	Macroinvertebrates	Fish	Literature Source
		X	Lemons 1954
		X	USBR 1972
	X		Wentz 1974
		X	BLM 1976
		X	CDOW Data Files

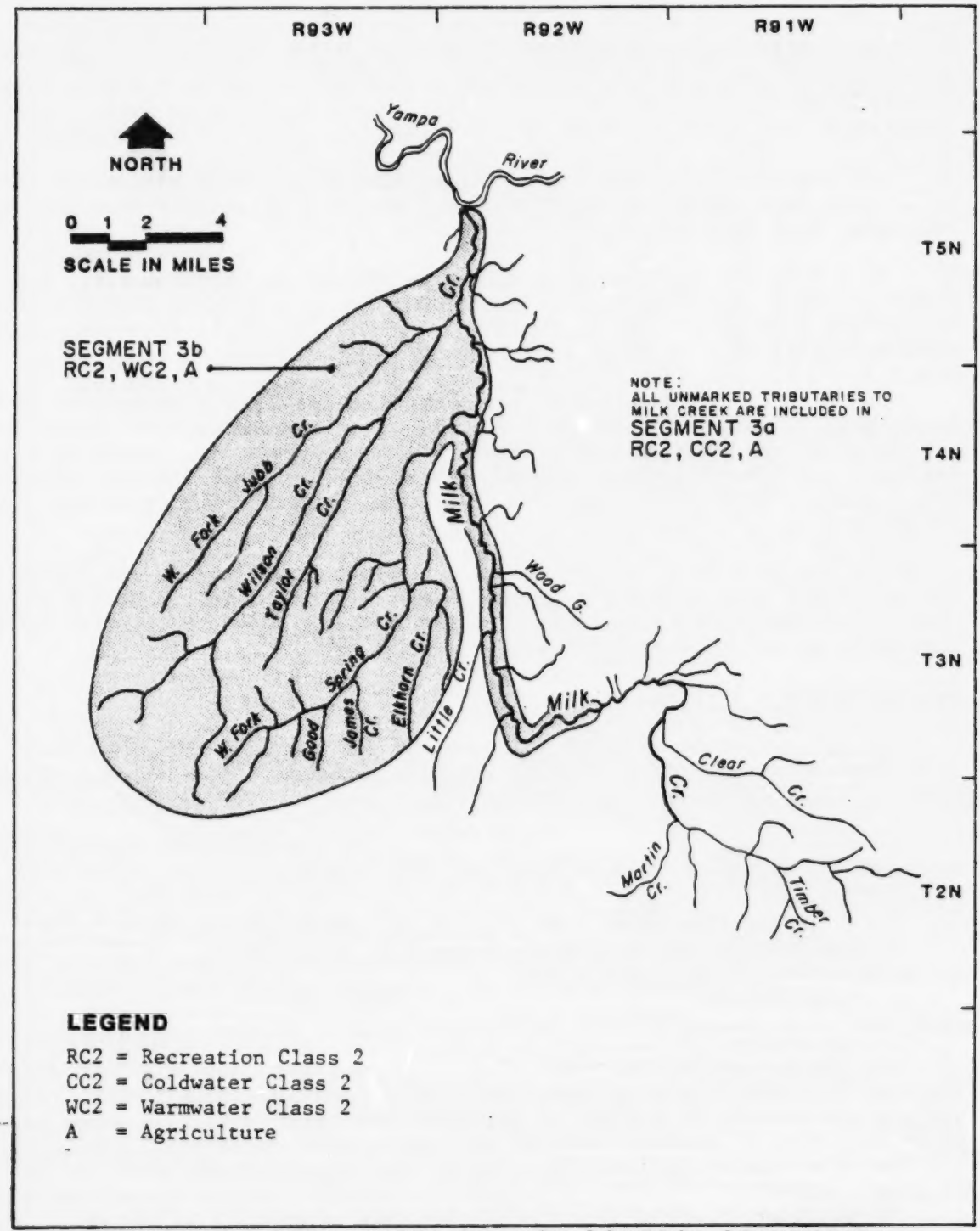


FIGURE 17. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATIONS WITHIN THE MILK CREEK BASIN.

Lemons (1954) surveyed the fish population of Axial Reservoir (Figure 18) and collected green sunfish, yellow perch, and white suckers. Lemons noted that fisherman stated there were black bass in the reservoir as well. Lemons recommended that Axial Reservoir be stocked with black bass and northern pike.

The USBR (1972), in the Yellow Jacket feasibility study, indicated that brook trout were present in Milk Creek headwaters. No station locations or additional data were presented.

In a study of mining-related discharge effects on water quality, Wentz (1974) provided limited macroinvertebrate data for five localities (Figure 18) within the Milk Creek basin. Only seven major taxonomic divisions were reported (Table 13). No additional information was provided.

The BLM (1976) prepared an environmental impact statement for coal development in northwest Colorado. A total of seven fish species (Table 14) was reported from Axial Reservoir, based on CDOW records. The remaining four species (flannelmouth sucker, redside shiner, speckled dace, fathead minnow) were reported from Milk Creek, but sampling locality information was not included.

The CDOW data files contain additional records for two fish species from the Milk Creek basin (Table 14) collected during 1979 and 1981. No fish were collected at the Wilson Creek site (Figure 19) while only suckers and minnows were noted at the Stinking Gulch site.

Aquatic Habitat

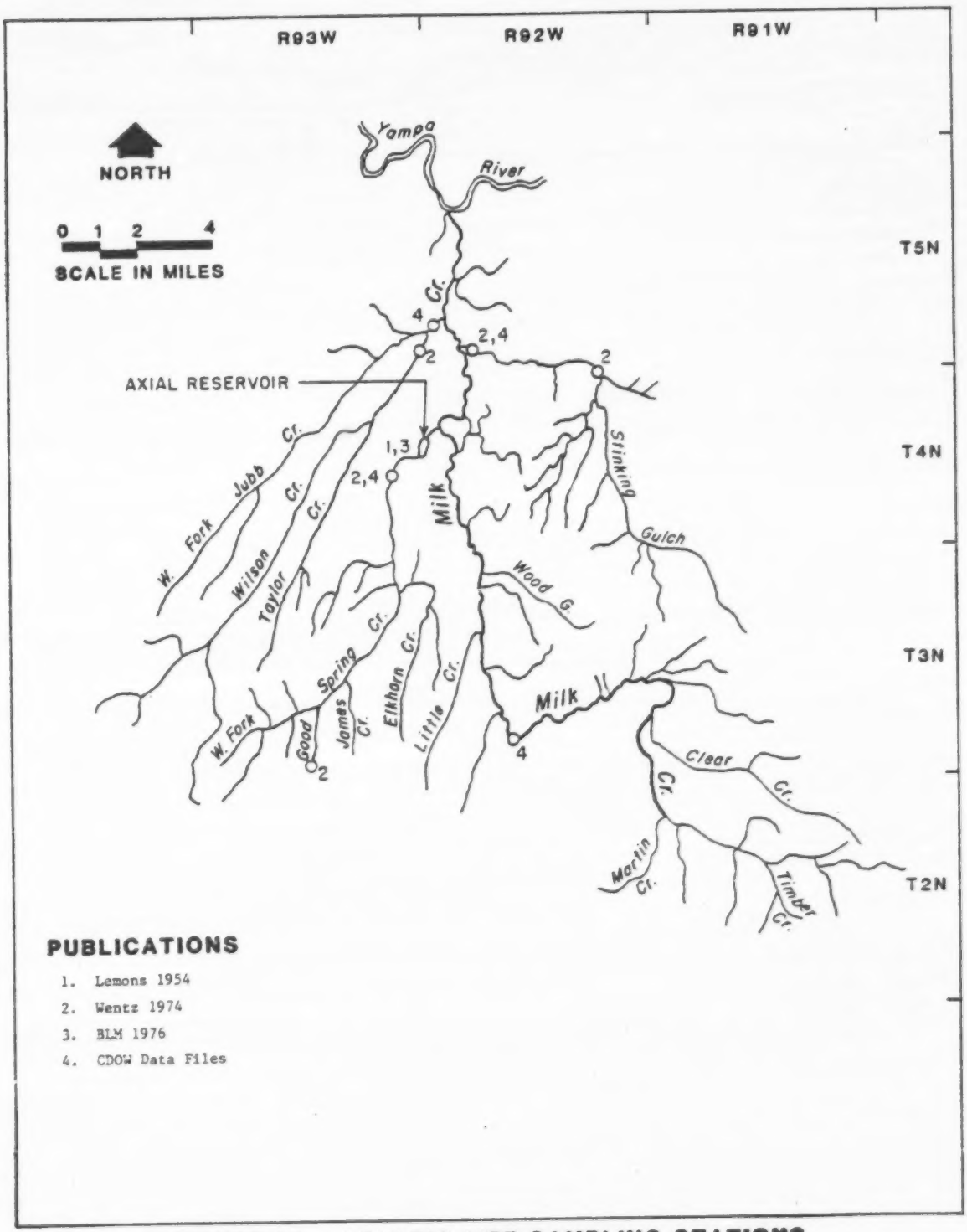
No aquatic habitat studies have been conducted in the Milk Creek basin. Axial Reservoir provides warm-water reservoir habitat. Much of Milk Creek basin consists of intermittent tributaries.

WILLIAMS FORK BASIN

The Williams Fork River drains about 400 square miles in a northerly direction to its confluence with the Yampa River approximately 10 miles downstream from Craig (Figure 20).

Hydrology

One gaging station has been located on the main stem and four other stations have been placed on major forks of the Williams Fork River. These include the Williams Fork River at Hamilton, the South Fork of Williams Fork River near Pagoda, the East Fork of Williams Fork River above Willow Creek, and the East Fork of Williams Fork River near Willow Creek, (Station Nos. 09249500, 09249200, 09249000, 09248600, and 09248500, respectively) (Figure 21). Streamflow at each of the stations has been perennial over the period of record. The increased streamflow period extends from March through July, with peak flow occurring in both May and June. The East Fork of the Williams Fork



PUBLICATIONS

1. Lemons 1954
2. Wentz 1974
3. BLM 1976
4. CDOW Data Files

FIGURE 18. AQUATIC LIFE SAMPLING STATIONS WITHIN THE MILK CREEK BASIN.

TABLE 13. AQUATIC MACROINVERTEBRATES REPORTED FROM THE MILK CREEK BASIN

Taxa	Literature Source Wentz 1974
Hirudenea	X
Plecoptera	X
Ephemeroptera	X
Trichoptera	X
Diptera	
Chironomidae	X
Simuliidae	X
Gastropoda	X
Total number of taxa reported	7

TABLE 14. FISH REPORTED FROM THE MILK CREEK BASIN

Taxa	Literature Source Lemons 1954	BLM 1976	CDOW Data Files
Rainbow trout		X	
Fathead minnow		X	
Speckled dace		X	X
Redside shiner		X	
White sucker	X		
Flannelmouth sucker		X	
Mountain sucker			X
Channel catfish		X	
Black bullhead		X	
Green sunfish	X	X	
Largemouth bass		X	
Black crappie		X	
Yellow perch	X	X	

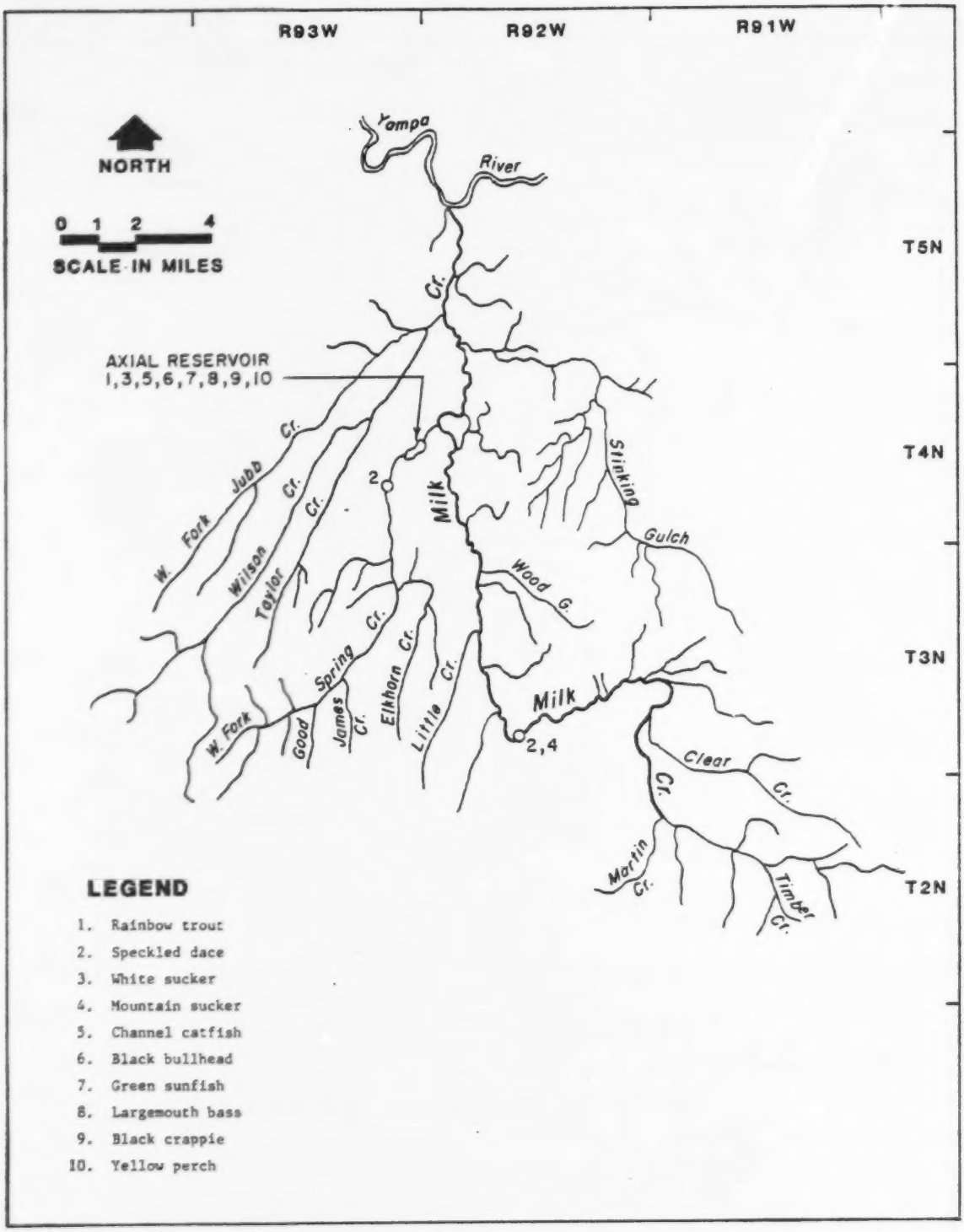


FIGURE 19. FISH DISTRIBUTION WITHIN THE MILK CREEK BASIN.

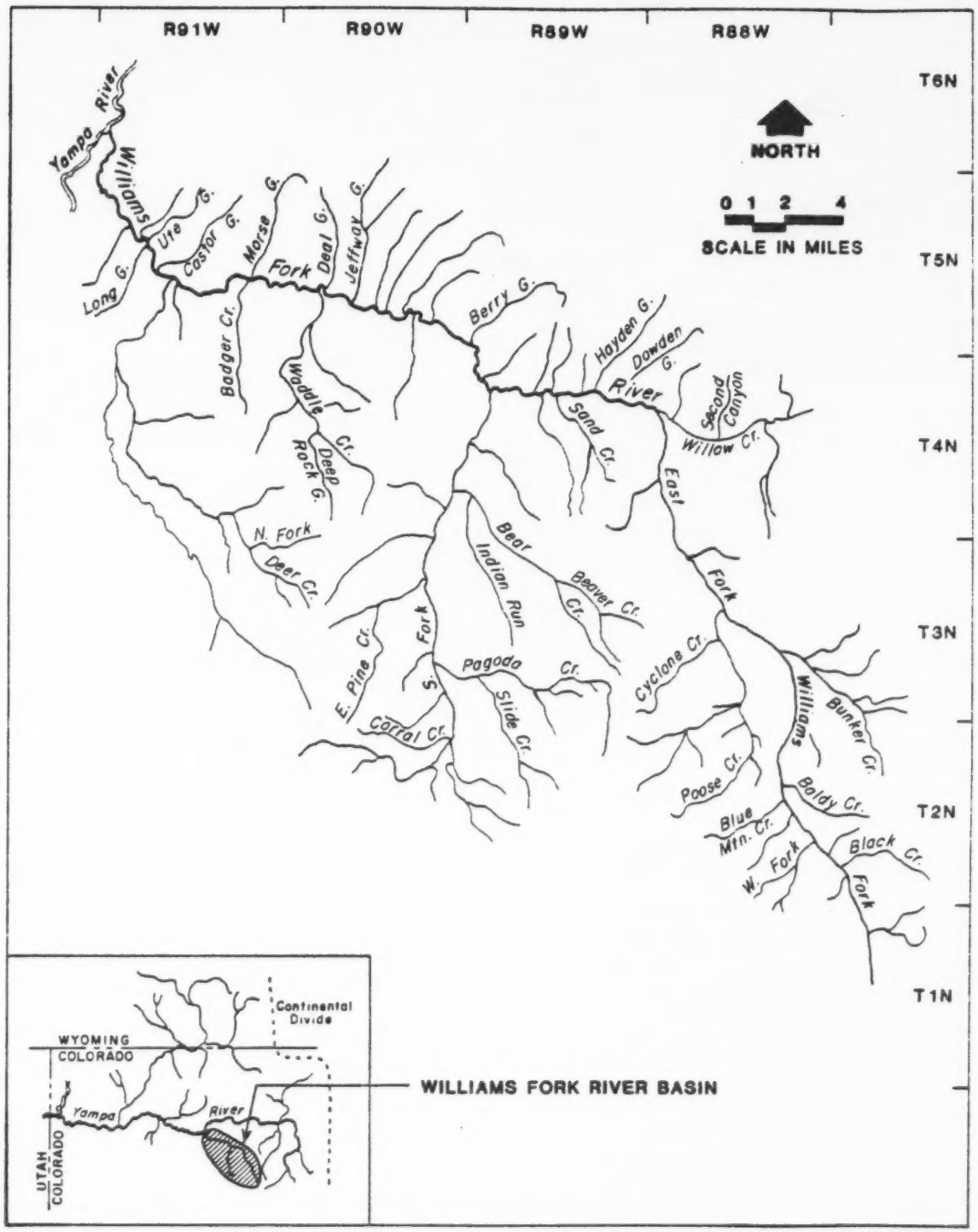
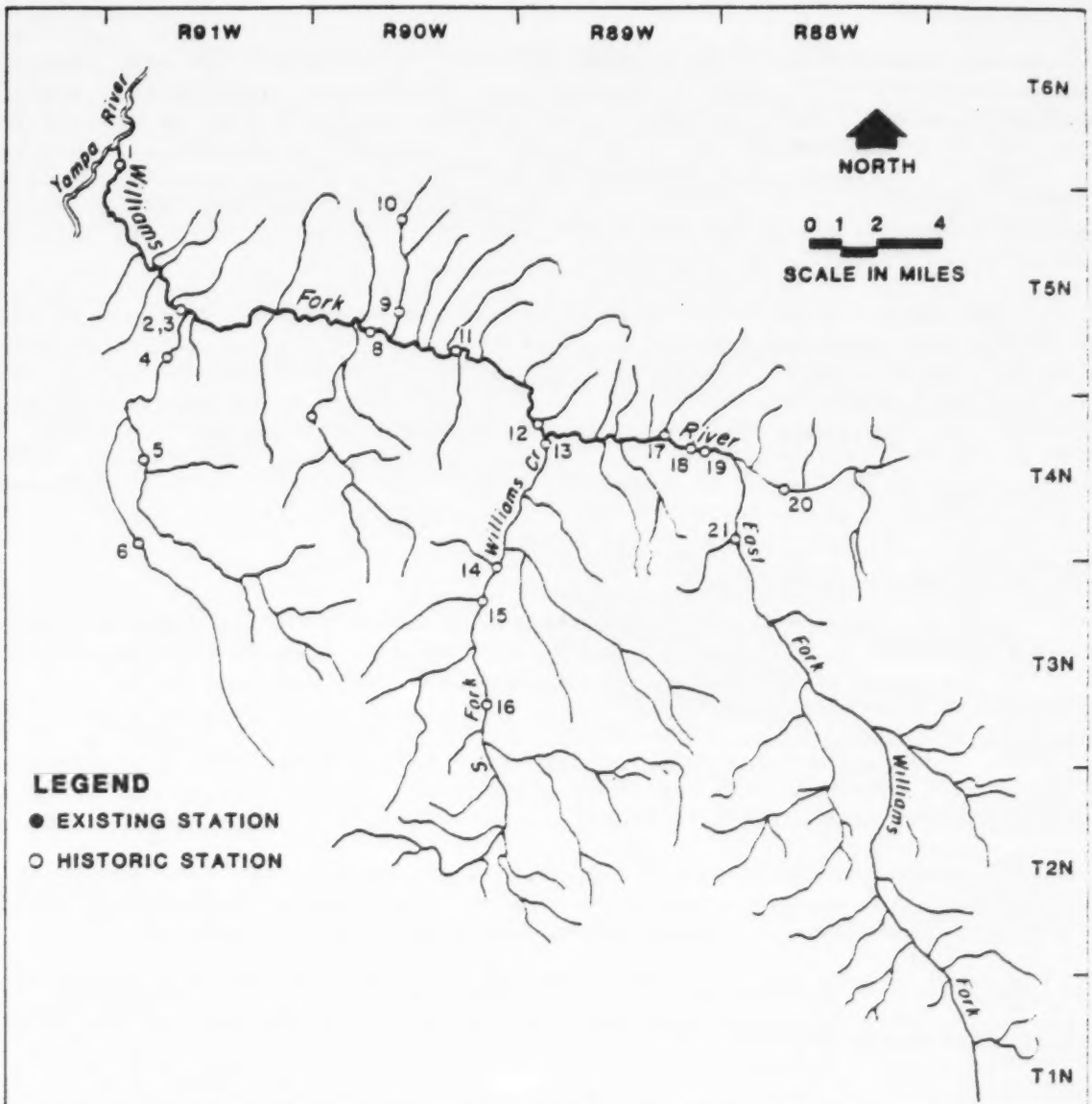


FIGURE 20. WILLIAMS FORK RIVER BASIN.



AGENCY STATION NUMBER. SEE APPENDIX A FOR DESCRIPTION.

1.	USGS 09249750	8.	USGS 402152107301300	15.	USGS 401530107262300
2.	USGS 09249500	9.	USGS 402205107293701	16.	USGS 09249200
3.	USGS 402221107365200	10.	USGS 402445107293101	17.	USGS 401913107204100
4.	USGS 09249700	11.	USGS 402127107273501	18.	USGS 09248500
5.	USGS 401829107375600	12.	USGS 402042107252101	19.	USGS 09249000
6.	USGS 401601107375400	13.	USGS 401857107243500	20.	USGS 401747107161600
7.	USGS 401944107322900	14.	USGS 401546107260700	21.	USGS 09248600

FIGURE 21. WILLIAMS FORK RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

River has a peak flow in June while the rest of the basin has peak flow in May. This late peak flow is in response to delayed snowmelt from higher elevation snow accumulation areas. It has been estimated that as much as 85 percent of streamflow in the basin occurs in response to snowmelt (Bishop et al. 1982). The baseflow period on the Williams Fork River occurs from July through February at a constant rate of flow, indicating that ground water systems contributing to the river have sufficient annual recharge and storage to maintain streamflow throughout the year.

Additional streamflow measurements have been recorded at the mouth of the Williams Fork River as part of the surface water monitoring associated with the Eagle Mines (Empire Energy Corporation, 1979). Both the Williams Fork and Yampa Rivers have been undermined by the Eagle Mines. Streamflow at this station has been recorded monthly by the Empire Energy Company for about 3 years and data are available in the Eagle Mines permit application. The responsibility for recording streamflow at this station was transferred to the USGS in February 1984.

Water Quality

Water quality data from the Williams Fork River basin are limited. Only a single station near the mouth (Figure 21) had more than 24 data points for any of the selected parameters during the 1978-1983 analysis period. This station was discontinued in 1980.

The CDOH has divided the Williams Fork River basin into six segments (Figure 22), based on existing water quality and use. The majority of the basin has been classified as suitable for water supply and agricultural uses.

The concentration of several parameters at the Williams Fork River station (09249750) exceed those recorded for the nearby Yampa River site (09247600) (Appendix E). Copper values exceed the CDOH standard.

Andrews (1978) reported that the Williams Fork River contributed 10 percent of the total Yampa River basin discharge and 11 percent of the total Yampa River basin sediment yield.

Aquatic Life

Information on the aquatic life of the Williams Fork River basin is limited. The available publications are listed in Table 15.

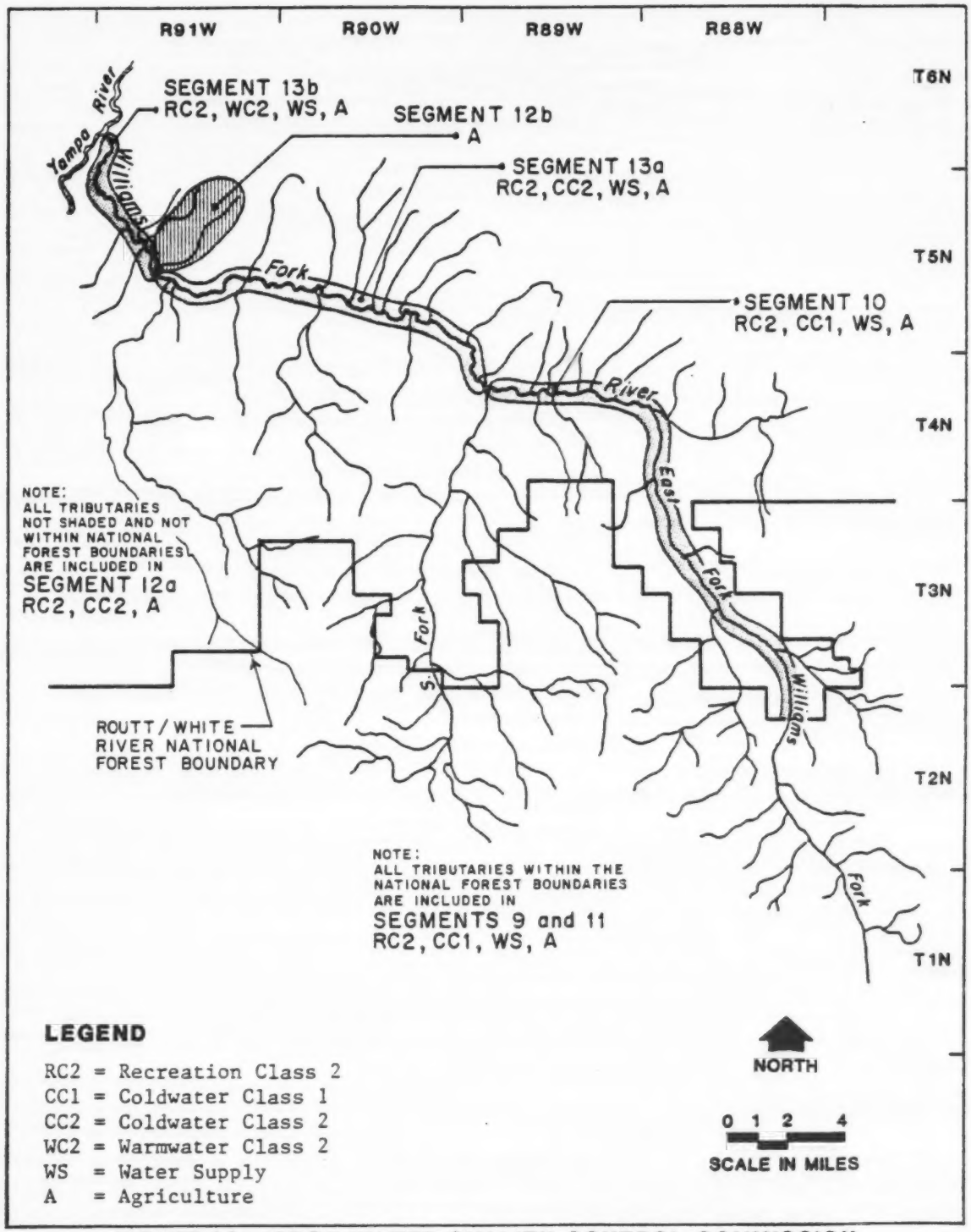


FIGURE 22. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATIONS WITHIN THE WILLIAMS FORK RIVER BASIN.

TABLE 15 . AQUATIC LIFE STUDIES WITHIN THE WILLIAMS FORK RIVER BASIN

Periphyton	Macroinvertebrates	Fish	Literature Source
		X	Klein 1957
	X		Wentz 1974
		X	BLM 1976
	X	X	Empire Energy 1979
	X		Wu et al. 1982
		X	CDOW Data Files

During a survey of the whitefish of the Yampa River basin, Klein (1957) reported five fish species from the Williams Fork River basin. Five locations were sampled (Figure 23), but distribution data were only presented for the whitefish.

Wentz (1974) sampled macroinvertebrates at nine locations in the Williams Fork River. A total of seven major taxa was reported (Table 16).

The BLM (1976) listed 11 fish species as present in the Williams Fork River basin (Table 17). No collection station information was provided.

Empire Energy Corporation (1979) summarized several studies on the fish and macroinvertebrates of the Williams Fork River. The original studies were not available for review. A total of eight fish species (Table 17) and five higher macroinvertebrate taxa was reported.

Wu et al. (1982), during their survey of the mollusks of northwest Colorado, collected two taxa, a snail and a limpet, at Hamilton.

The CDOW data files contain the most information concerning fish distribution within the Williams Fork River basin. A total of 13 species from throughout the basin (Figure 24) is documented. The majority of the CDOW studies were conducted in the headwater areas of the basin.

Aquatic Habitat

Aquatic habitat studies have not been conducted within the Williams Fork River basin. The Williams Fork provides more perennial habitat than adjacent basins due to its larger size.

FORTIFICATION CREEK

Fortification Creek drains about 260 square miles in a southerly direction to its confluence with the Yampa River at Craig (Figure 25). Ralph White Reservoir is a major recreation/irrigation reservoir within the basin.

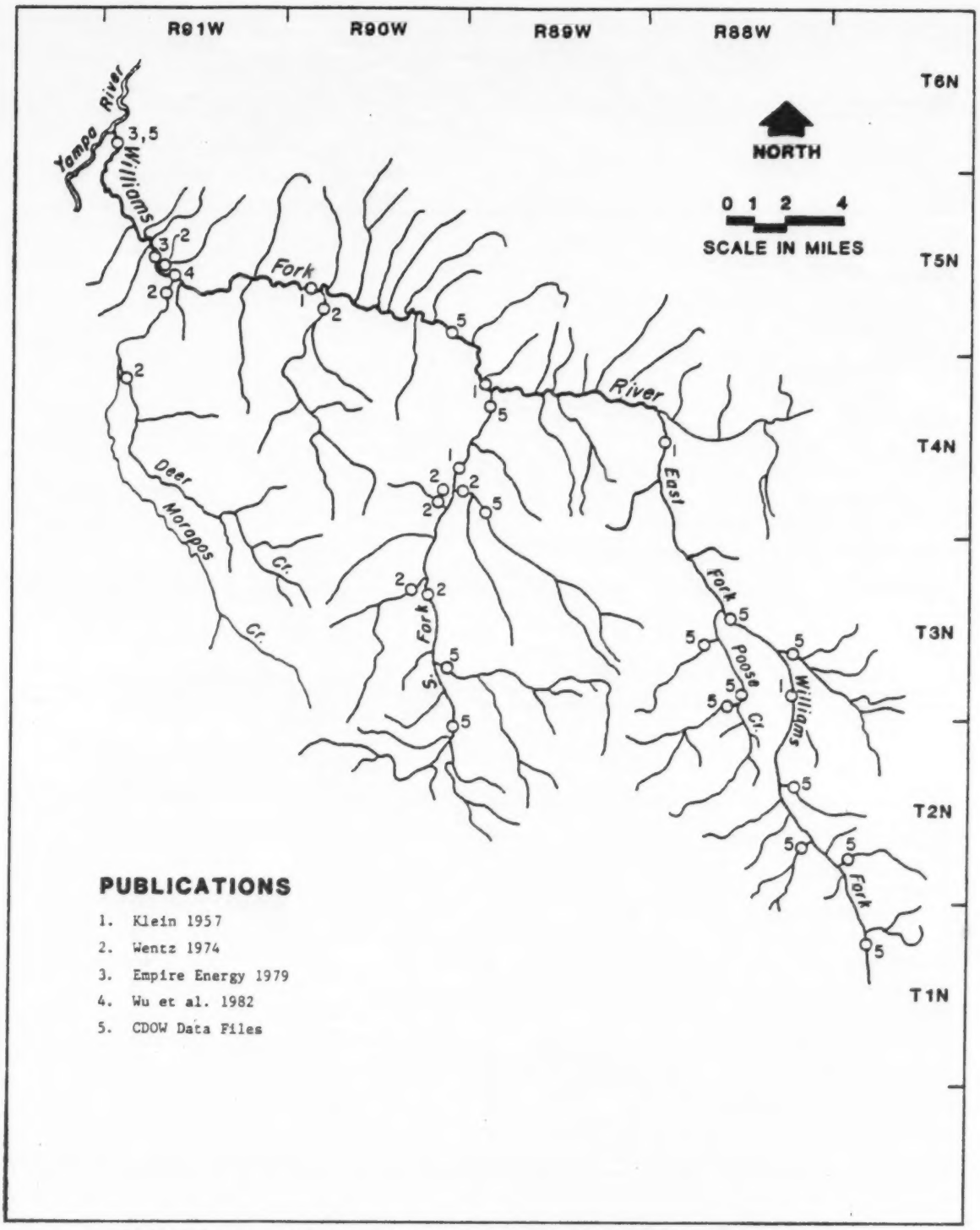


FIGURE 23. AQUATIC LIFE SAMPLING STATIONS WITHIN THE WILLIAMS FORK RIVER BASIN.

TABLE 16. AQUATIC MACROINVERTEBRATES REPORTED FROM THE WILLIAMS FORK RIVER BASIN

Taxa	Literature Source: Wentz 1974	Empire Energy 1979	Wu et al. 1982
Plecoptera	X	X	
Ephemeroptera	X	X	
Trichoptera	X	X	
Coleoptera	X	X	
Diptera		X	
Chironomidae	X		
Simuliidae	X		
Gastropoda	X		
Ancylidae			
Ferrissia rivularis			X
Physidae			
Physa virgata			X
Total number of taxa reported	7	5	2

TABLE 17. FISH REPORTED FROM THE WILLIAMS FORK RIVER BASIN

Taxa	Literature Source: Empire Klein 1957	BLM 1976	Energy 1979	CDOW Data Files
Mountain whitefish	X	X		X
Brook trout				X
Brown trout	X	X		X
Cutthroat trout	X	X		X
Rainbow trout	X	X	X	X
Roundtail chub		X	X	
Fathead minnow		X		X
Speckled dace		X	X	X
Redside shiner		X	X	X
White sucker		X	X	X
Bluehead sucker		X	X	X
Flannelmouth sucker		X	X	X
Mottled sculpin	X	X	X	X

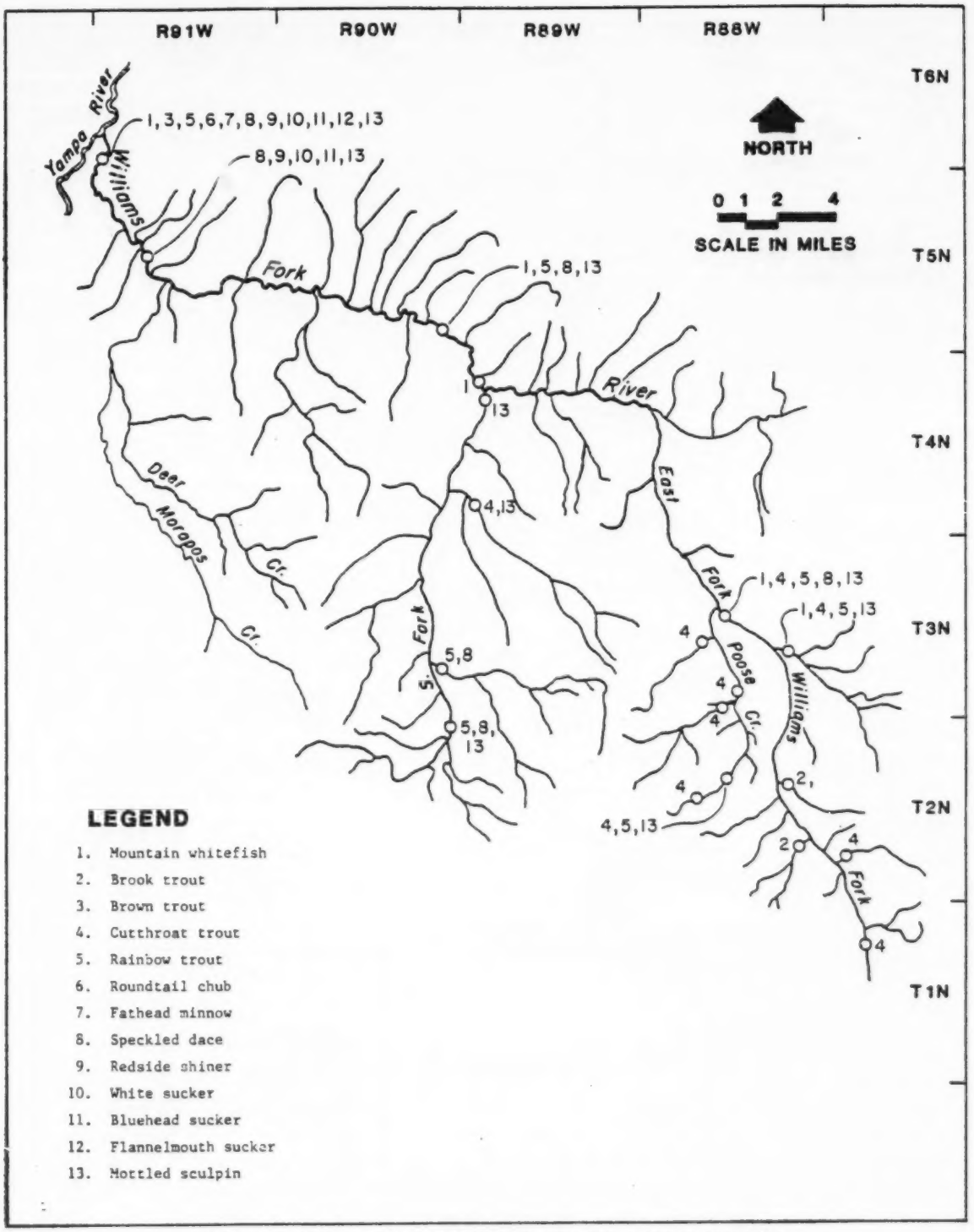


FIGURE 24. FISH DISTRIBUTION WITHIN THE WILLIAMS FORK RIVER BASIN.

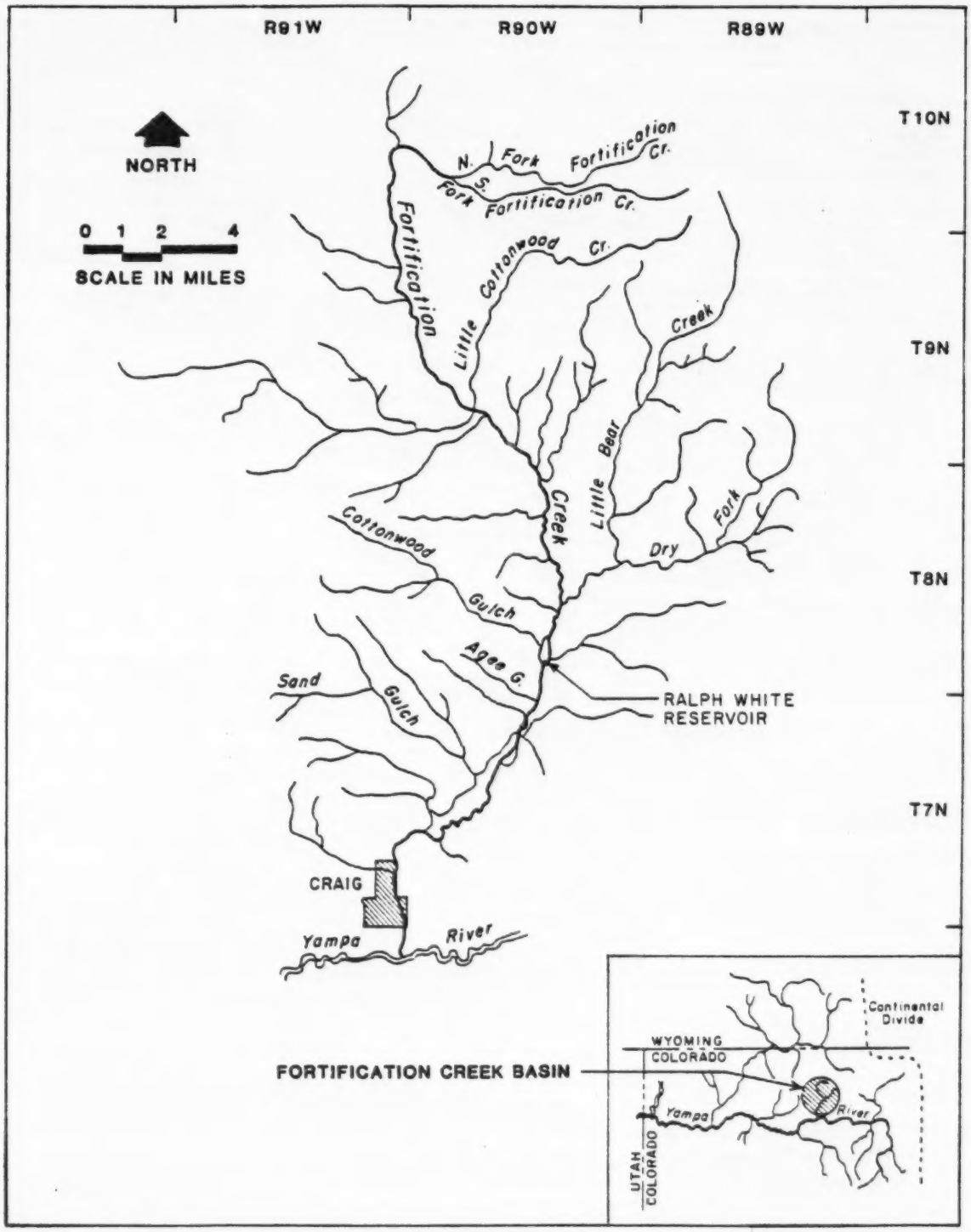


FIGURE 25. FORTIFICATION CREEK BASIN.

Hydrology

Streamflow has been recorded at two gaging stations on Fortification Creek (Figure 26). Neither station is currently operating. The increased streamflow period at both sites occurs from March through July with peak flow ocucrring in May. The downstream station has experienced three months of near peak flow conditions (March, April, and May) while the upstream station shows a more typical gradual rise and fall in the hydrogaph. It should be noted that each hydrogaph is representative of different periods of time as the lower stream gage was deactivated prior to installation of the upstream station. Baseflow at the upper station sustains the streamflow during the period July through January. The slight increase in baseflow in September and October observed at the downstream gaging site is indicative of the end of the irrigation season, which allows the release of additional water downstream.

Water Quality

No long-term, recent water quality data are available for Fortification Creek. Sampling at two stations (Figure 26) was initiated in 1983.

The CDOH has divided the Fortification Creek basin into five segments (Figure 27). No exceedances of the CDOH numeric standards have occurred in the limited recent data.

Aquatic Life

The available Fortification Creek basin aquatic life studies are listed in Table 18. Oblad (1969) reported a single stonefly, Capnia limata, from Fortification Creek during his Yampa River study. A single sampling site was reported (Figure 28).

TABLE 18. AQUATIC LIFE STUDIES WITHIN THE FORTIFICATION CREEK BASIN

Periphyton	Macroinvertebrates	Fish	Literature Source
	X		Oblad 1969
	X		Wentz 1974
	X		Wu et al. 1982
		X	CDOW Data Files

Wentz (1974) reported six macroinvertebrate taxa (Table 19) from Fortification Creek and its tributaries. Collections were made at four localities (Figure 28) during 1972. Wentz noted the presence of a fungal or baterial slime at the Coal Creek site but did not mention any potential causes for its growth.

Wu et al. (1982), in their distributional study of clams and snails of northwestern Colorado, reported seven taxa (Table 19) from three collection localities (Figure 28) within Fortification Creek basin.

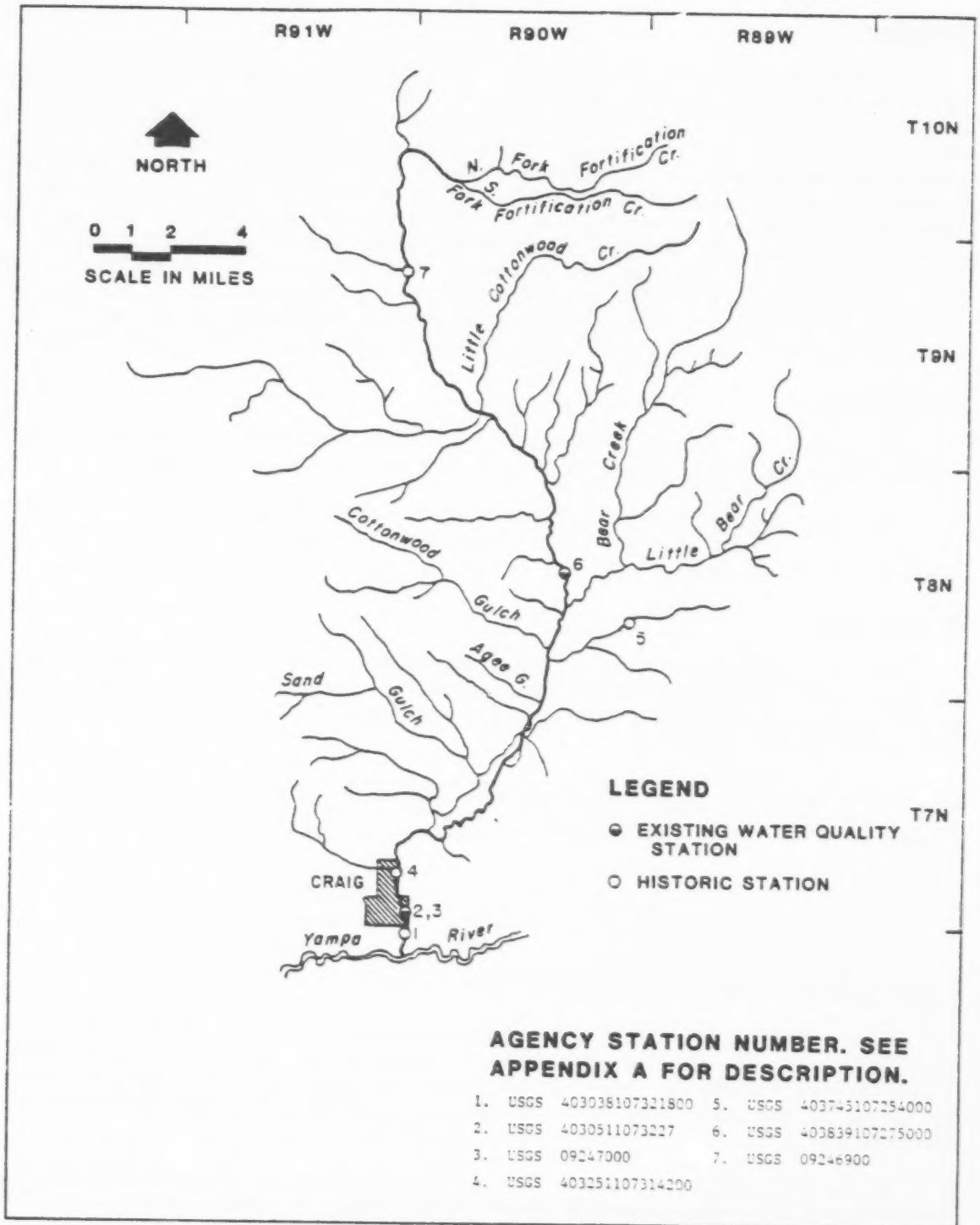
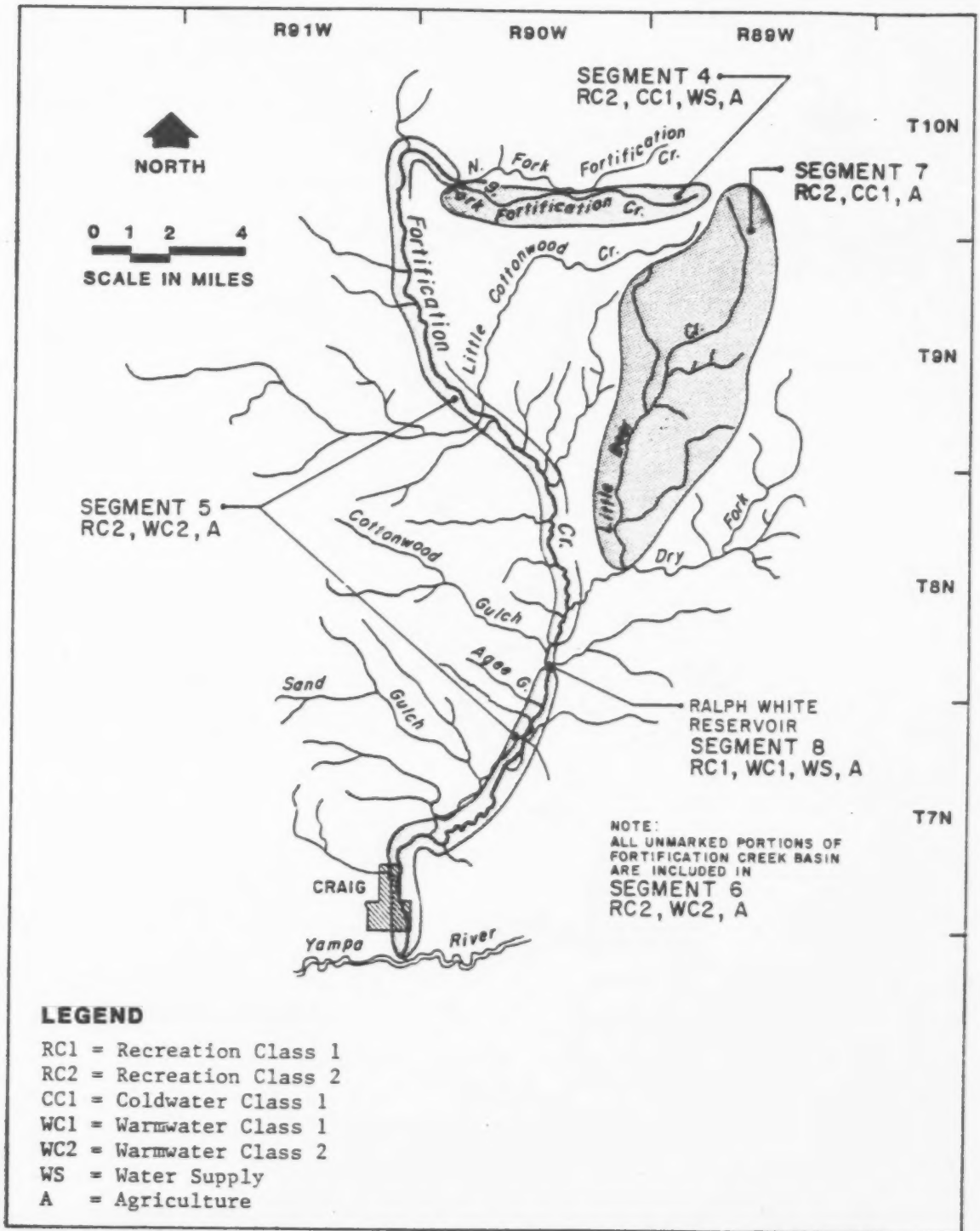


FIGURE 26. FORTIFICATION CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



LEGEND

RC1 = Recreation Class 1
RC2 = Recreation Class 2
CC1 = Coldwater Class 1
WC1 = Warmwater Class 1
WC2 = Warmwater Class 2
WS = Water Supply
A = Agriculture

FIGURE 27. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATIONS WITHIN THE FORTIFICATION CREEK BASIN.

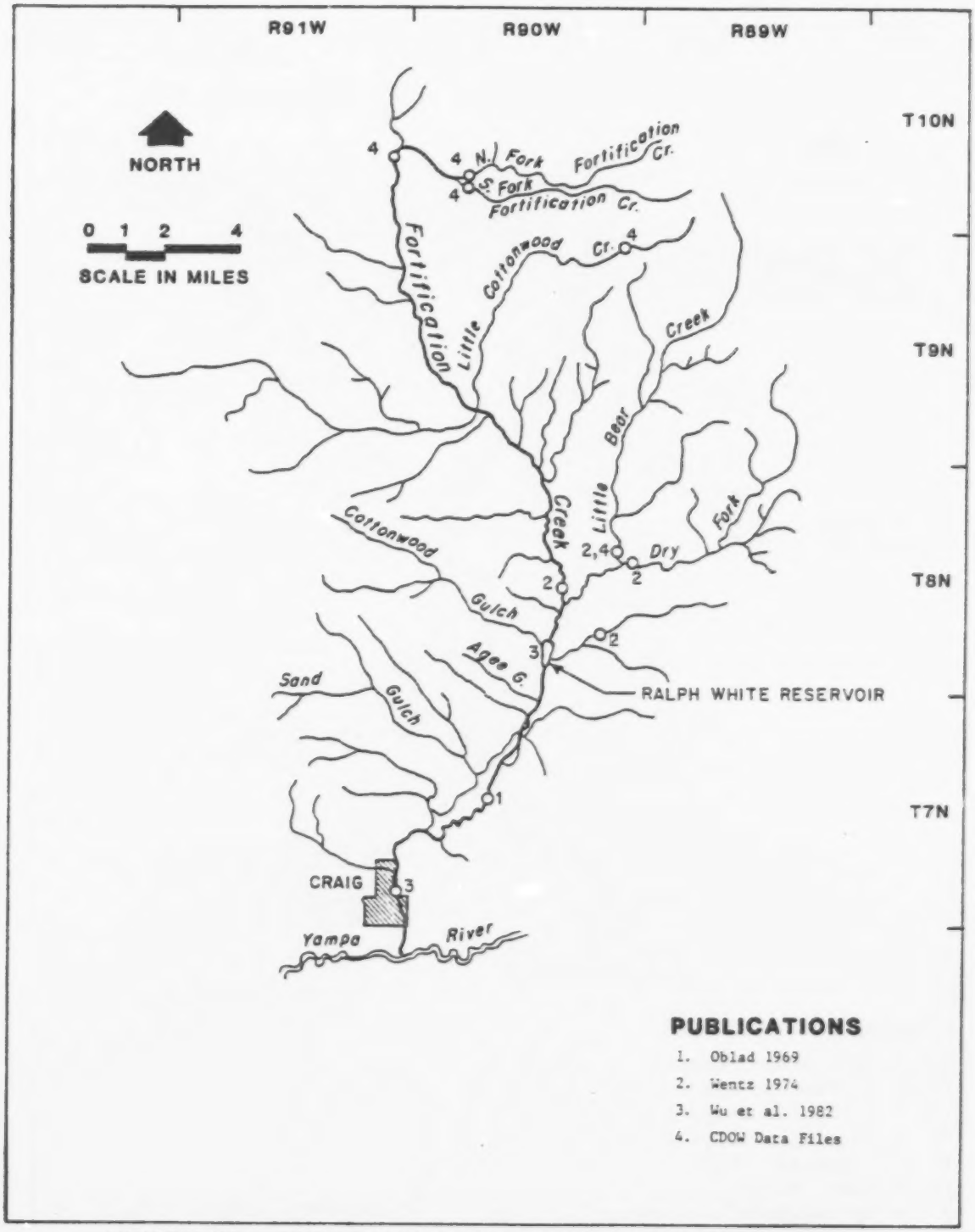


FIGURE 28. AQUATIC LIFE SAMPLING STATIONS WITHIN THE FORTIFICATION CREEK BASIN.

TABLE 19. AQUATIC MACROINVERTEBRATES REPORTED FROM THE FORTIFICATION CREEK BASIN

Taxa	Literature Source: Oblad 1969	Wentz 1974	Wu et al. 1982
Plecoptera		X	
Capniidae			
Capnia limata	X		
Ephemeroptera		X	
Trichoptera		X	
Coleoptera		X	
Diptera			
Chironomidae		X	
Simuliidae		X	
Gastropoda			
Valvatidae			
Valvata sincera			X
Lymnaeidae			
Lymnaea elodes			X
Physidae			
Aplexa hypnorum			X
Planorbidae			
Helisoma trivolvis			X
Pelecypoda			
Sphaeriidae			
Musculium lacustre			X
Pisidium compressum			X
Sphaerium striatinum			X
Total number of taxa reported	1	6	7

In 1980, the CDOW surveyed the fish populations at five locations (Figure 28) within the Fortification Creek basin (CDOW 1984). Five species were distributed between four of the locations (Figure 29). No fish were collected at the northwestern locality.

Aquatic Habitat

No aquatic habitat information has been published for the Fortification Creek basin. Ralph White Reservoir provides large lake habitat in a region with few lakes. The remainder of the basin is arid with many intermittent tributaries.

UPPER YAMPA RIVER BASIN AND MINOR TRIBUTARIES

The upper Yampa River basin includes the Yampa River basin upstream from the Elkhead Creek confluence, including the Elkhead Creek basin (Figure 30). The Elk River and Trout Creek tributaries to the upper Yampa River are discussed in subsequent sections.

Hydrology

The upper Yampa River basin comprises approximately the eastern half of the study area (Figures 31 and 32). At the most downstream gage on the upper Yampa River, below the diversion near Hayden, (Station No. 09244410), the basin drainage area is 1430 square miles. In the mountainous headwater areas of the Yampa River, average annual precipitation ranges as high as 50 inches per year, with the majority occurring as snow during the months of November through April (Bishop et al. 1982). Estimates have been made that 65 percent of the streamflow in the Yampa River occurs in response to snowmelt (Steele et al. 1979). In addition, the headwaters of the Yampa River comprising approximately 20 percent of the drainage basin area, contribute 58 percent of the total surface runoff for the Yampa River basin (Melancon et al. 1980). Irrigation in the upper Yampa River basin occurs on approximately 30,000 acres (USGS, 1983).

Four gaging stations have recorded streamflow in the upper Yampa River basin: Yampa River below diversion near Hayden, Colorado; Yampa River near Hayden, Colorado; Yampa River at Steamboat Springs, Colorado; and Yampa River near Oak Creek, Colorado (Station Nos. 09244410, 09244400, 092359500, and 09237500, respectively). The stations near Hayden and near Oak Creek have been discontinued. Streamflow has been perennial at each of these gaging stations during the period of record. The elevated runoff period, corresponding primarily to snowmelt, begins in March in the lower part of this subbasin and in April in the upper reaches of the upper Yampa River basin. Peak streamflow extends over the period of May through June. The sustained peak flow occurs in response to the early and late snowmelt at lower and higher elevation drainage basins, respectively. Streamflow is sustained by ground water discharge (baseflow) during the period of August through February. Ground water systems in the upper Yampa River basin receive sufficient annual recharge and have adequate storage to maintain a constant perennial discharge in the river. Similar to other hydrograph records for the

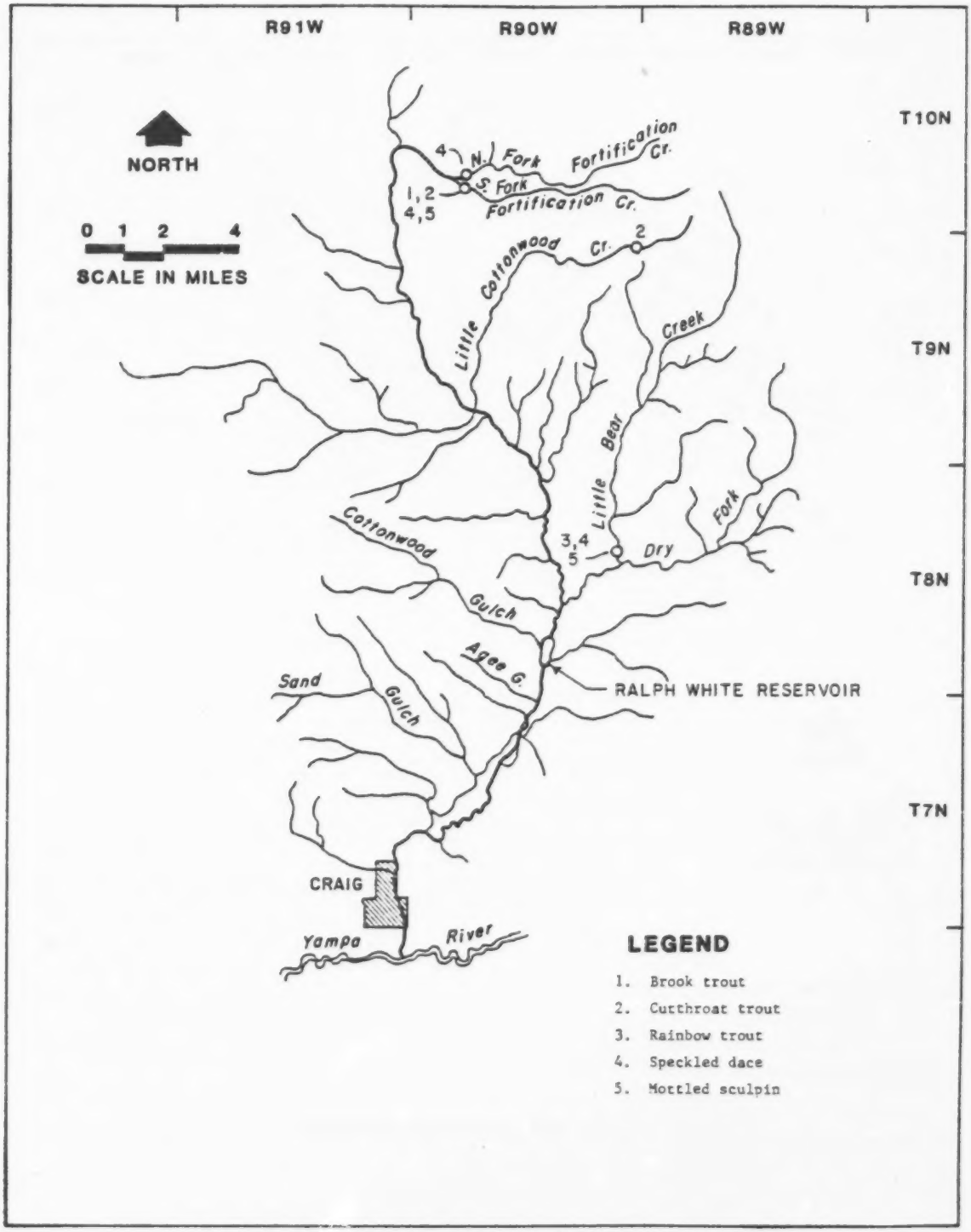


FIGURE 29. FISH DISTRIBUTION WITHIN THE FORTIFICATION CREEK BASIN.

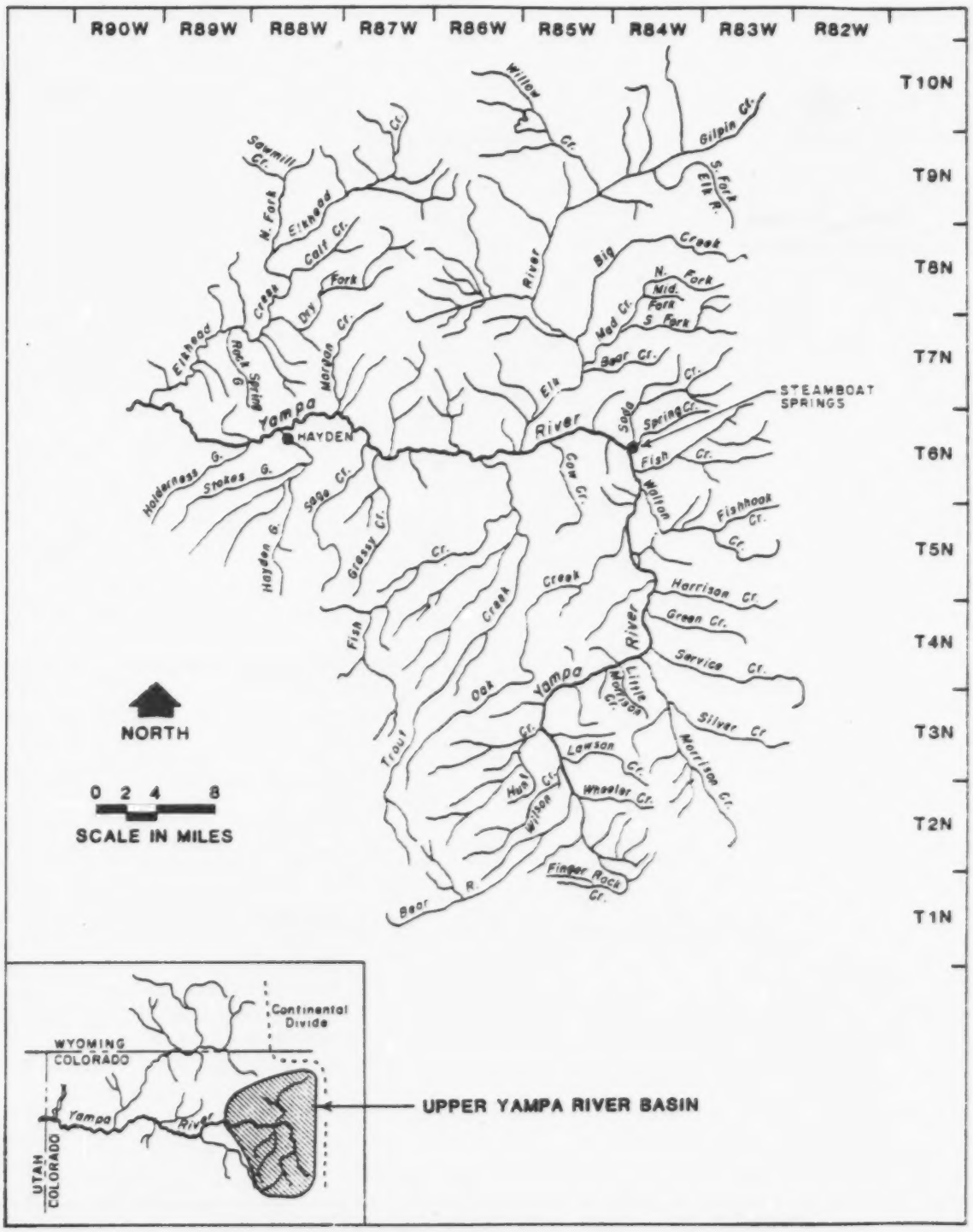


FIGURE 30. UPPER YAMPA RIVER BASIN.

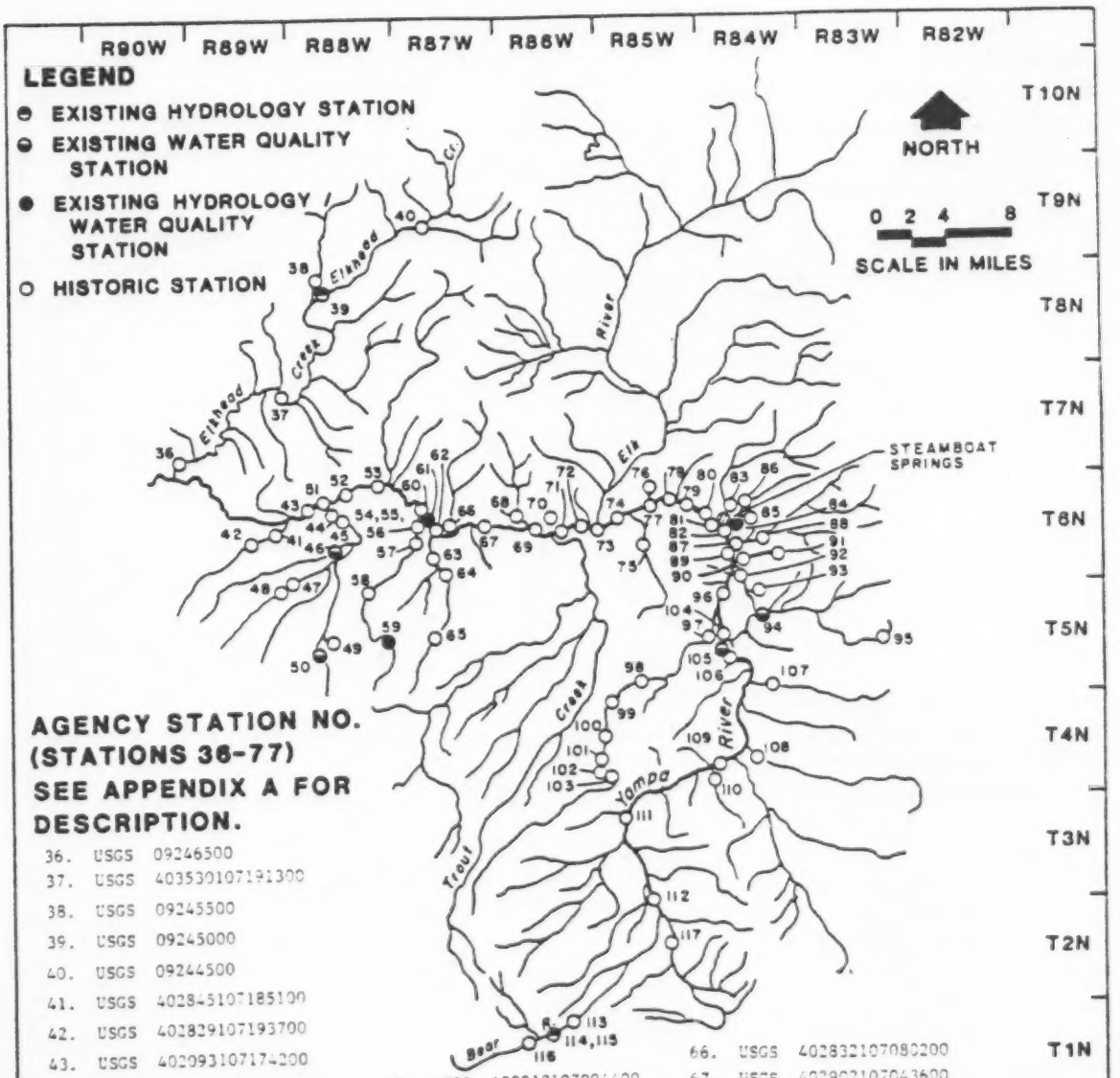


FIGURE 31. UPPER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

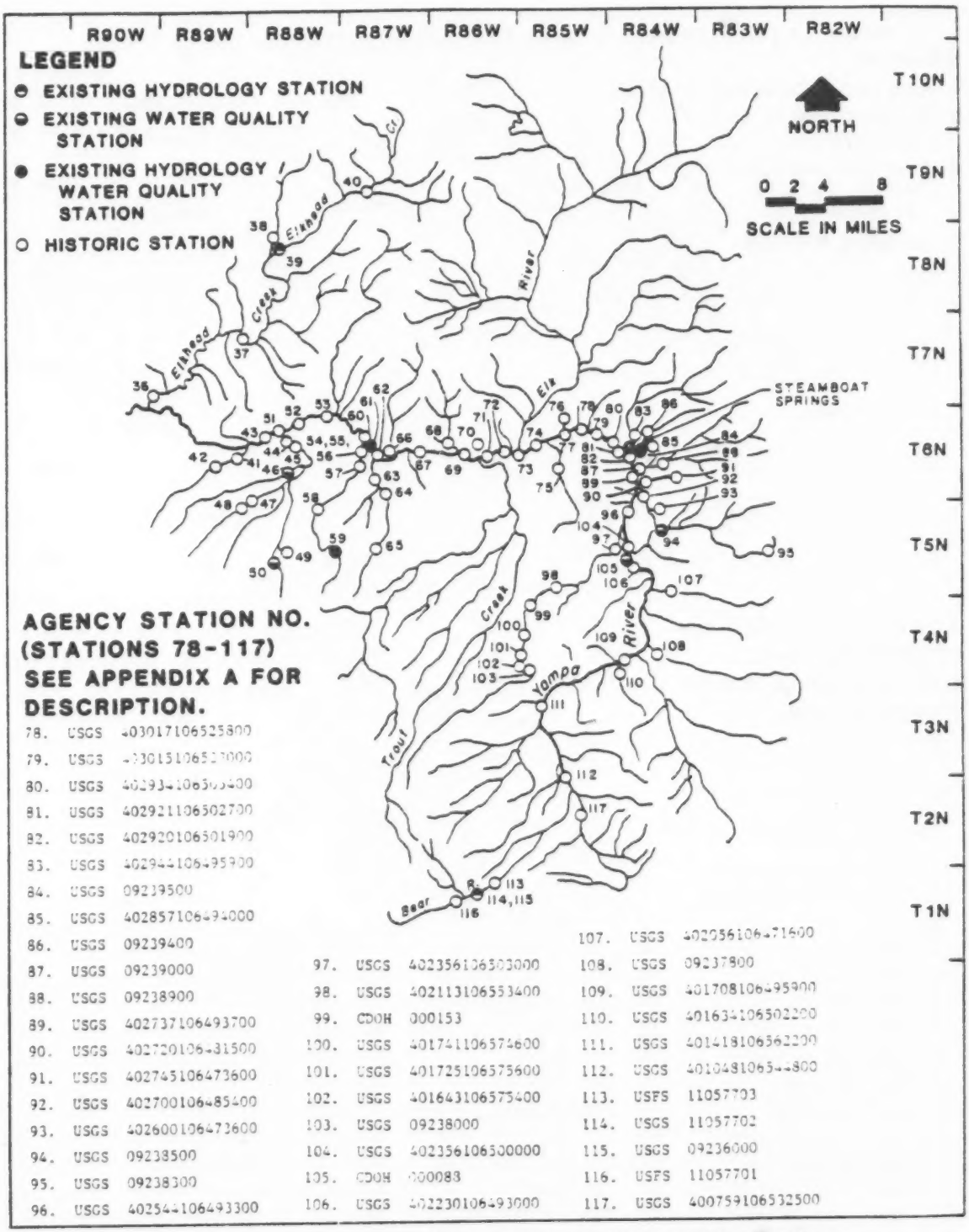


FIGURE 32. UPPER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

basin, the slight increase in streamflow during September and October is in response to additional runoff available to streamflow following the irrigation season.

Hydrographs were also plotted for minor tributaries to the upper Yampa River to give an indication of the runoff characteristics of smaller watersheds (Appendix C). These tributaries include Elkhead Creek, Walton Creek, and Bear River. These high elevation streams experience an increase in streamflow during the period from February/March through July/August, with peak flow occurring during May or June. The quick rise and fall of the hydrogaph on either side of the peak is characteristic of streams responding primarily to delayed snowmelt runoff. Baseflow in two of the minor tributaries (Elkhead and Walton Creeks) is quite low and is periodically depleted in Elkhead Creek.

Water Quality

Long-term water quality sampling is presently conducted at four stations along the main stem of the upper Yampa River and five stations within minor tributary basins (Figures 31 and 32). Of the selected parameters, a total of 16 have more than 24 data points within the 5-year analyzed period.

The upper Yampa River basin has been divided into several segments by the CDOH (Figure 33). The majority of the basin is classified as suitable for water supply uses.

Moran and Wentz (1974) discussed the effects of coal mine drainage on the water quality of Oak Creek just downstream from the town of Oak Creek. They noted that the coal mine drainage increased the levels of hardness, lead, and manganese within Oak Creek. Manganese was the only parameter which exceeded the drinking water standards.

The 1978 through 1983 data indicate that Oak Creek values (Station No. 000154) exceed the values of the adjacent Yampa River station (No. 000088). The Yampa River station, however, was the only site where a CDOH numeric standard (pH) was exceeded (Appendix D) during the analyzed period. The only other parameter which exceeded CDOH numeric standards for upper Yampa River basin streams was copper.

Andrews (1978) reviewed the sediment yield of the Yampa River basin. The Yampa River, upstream from Hayden, contributed about 50 percent of the total basin flow and about 6 percent of the total basin sediment yield. The 1978 through 1983 data analysis indicates that this trend has continued, with maximum turbidity and total dissolved solid values for the upper Yampa River stations lower than the mean values reported at the lower Yampa River stations (Appendix D).

Bauer et al. (1978) conducted an analysis of the wasteload assimilative capacity of the Yampa River between Steamboat Springs and Hayden in 1975. The

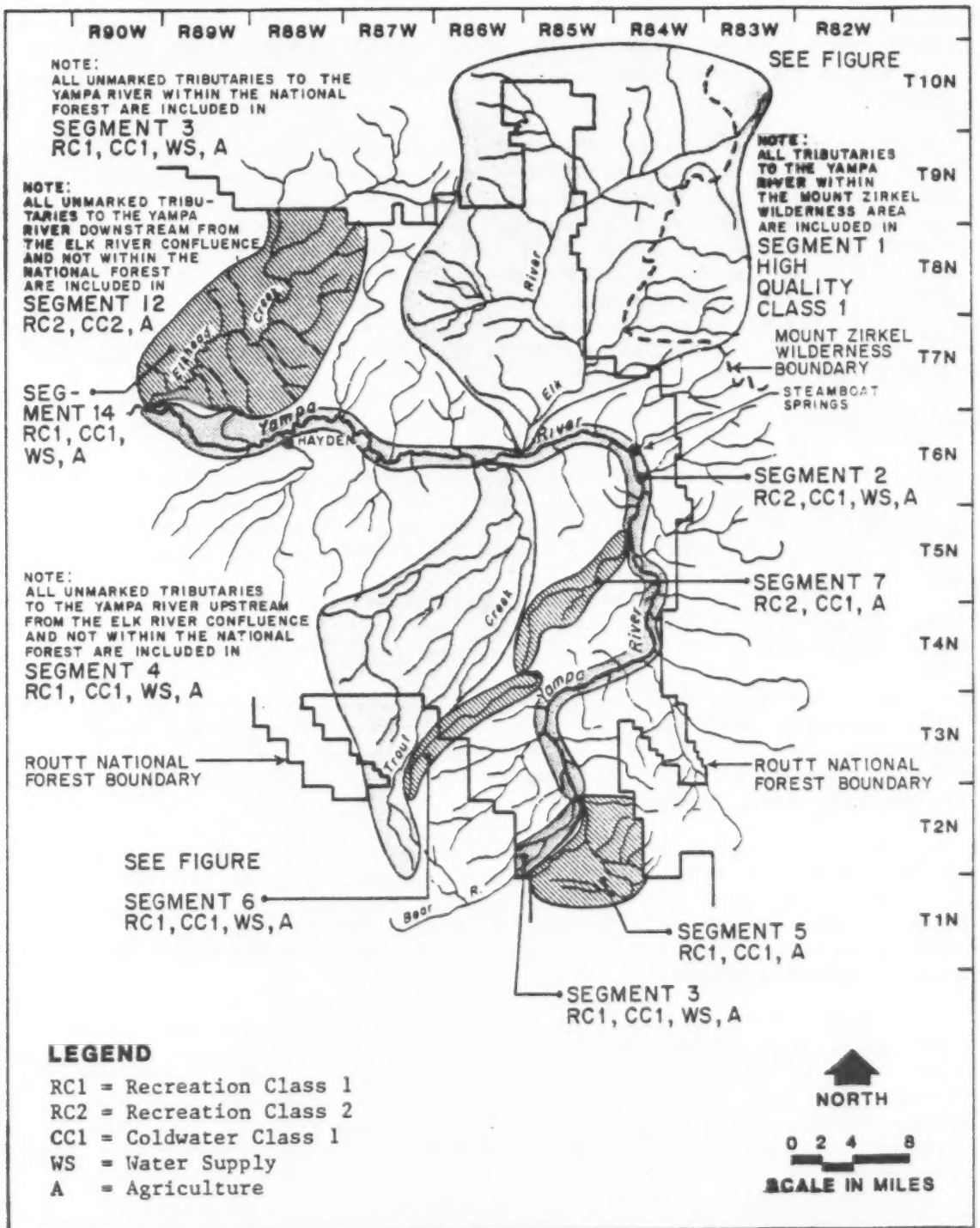


FIGURE 33. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATIONS FOR THE UPPER YAMPA RIVER BASIN.

model projections, for the year 2010 population estimate, indicated that unionized ammonia levels of 0.02 mg/l would be exceeded during low flow periods.

Bauer et al (1979) conducted a study of hydraulic travel time and reaeration characteristics of the Yampa River downstream from Steamboat Springs to confirm estimates used in the Bauer et al. (1978) wasteload assimilation analysis. The estimated values of travel time were within 6 percent of the measured values.

Wentz and Steele (1980) reported two areas within the upper Yampa River basin where degraded water quality conditions occurred. The Oak Creek drain, an abandoned coal mine drainage tunnel near Oak Creek, caused levels of manganese in Oak Creek proper to exceed drinking water standards. Other downstream effects on Oak Creek were minimal. The other site, Sage Creek near Hayden, experienced periods of low pH and elevated copper, lead and vanadium. These periodic episodes of water quality degradation were potentially attributed to cooling tower blowdown water which is discharged to Sage Creek from the Hayden Power Station. No discernable adverse effects on the Yampa River water quality below the Sage Creek confluence were noted.

Aquatic Life

Numerous aquatic life studies have been conducted within the upper Yampa River basin (Table 20). The majority of the studies, especially of the minor tributaries, have been directed toward fisheries.

TABLE 20. AQUATIC LIFE STUDIES WITHIN THE UPPER YAMPA BASIN INCLUDING THE MINOR TRIBUTARIES

Periphyton	Macroinvertebrates	Fish	Literature Source
	X	X	Baily and Alberti 1952
		X	Klein 1957
		X	Burkhard 1966
	X		Oblad 1969
		X	Andrews 1970
	X		Wentz 1974
	X		Eddy 1975
		X	Prewitt and Carlson 1975
		X	Stearns-Roger 1975
		X	BLM 1976
	X		Ames 1977
		X	Prewitt 1977
		X	Stearns-Roger 1978
	X	X	Carlson et al. 1979
X	X	X	Peabody 1980
X	X	X	Pittsburgh and Midway 1980
		X	Lytle et al. 1982
	X		Wu et al. 1982
		X	CDOW Data Files

Baily and Alberti (1952) conducted the initial surveys in the upper Yampa River. A total of nine fish species was collected along the Yampa River downstream from Hayden (Figure 34). Macroinvertebrates were collected near the Elk River confluence. Only limited data were presented, with five major taxa reported (Table 21).

The CDOW, in a census of the whitefish and trout of the upper Yampa River (Klein 1957), reported five fish species (Table 22) from the main stem and several tributaries to the upper Yampa River (Figure 34). Data for rough fish collected were not included. Klein recommended that whitefish fishing regulations be relaxed in order to harvest the population better.

Burkhard (1966) sampled macroinvertebrates at a single Yampa River station near Hayden. A total of 12 major taxa was reported. No discussion of the data was included.

Oblad (1969) reported 46 species of Plecoptera from the upper Yampa River and its minor tributaries. The majority of his efforts were made in the smaller, headwater areas of the basin (Figure 34).

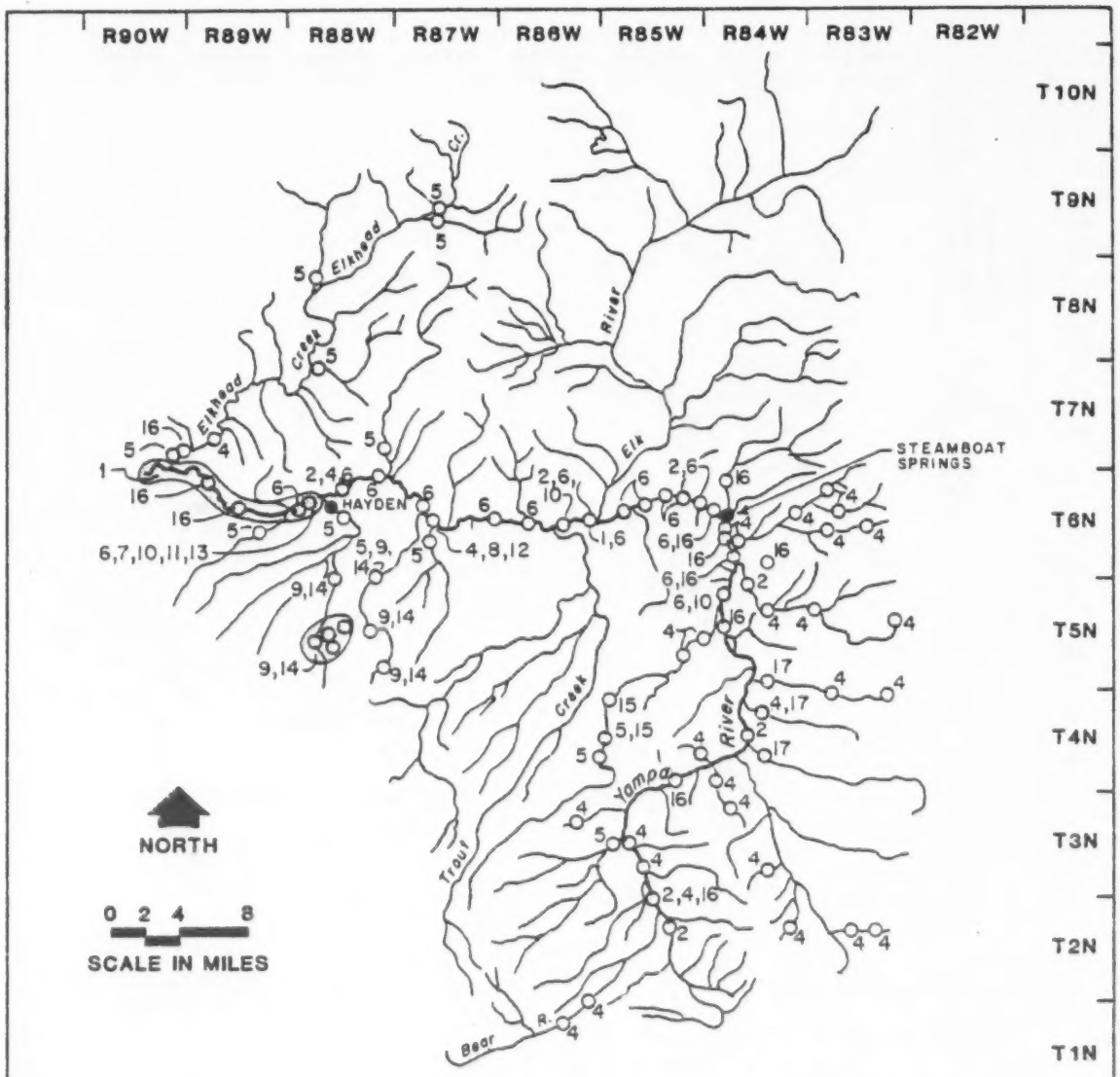
Andrews (1970) discussed the distribution and life history of fathead minnows in Colorado. While he did not collect fathead minnows in the Yampa River basin, he noted the collection of seven other fish species (Table 22). It was not possible to determine which segment of the basin, upper or lower, the fish were collected from, so they are arbitrarily listed in the upper segment.

Wentz (1974), during studies of streams within the coal and metal mine regions of Colorado, collected macroinvertebrates throughout the upper Yampa River basin (Figure 34). A total of eight major taxa was reported (Table 21). No discussion of the results was included.

Eddy (1975) collected macroinvertebrates at 17 sites along the main stem of the upper Yampa River (Figure 34). This is the most detailed macroinvertebrate study available for this stream reach. A total of 75 taxa was reported (Table 21). Eddy concluded that the macroinvertebrate communities were negatively affected by the point source discharges along the river.

Colorado State University personnel initiated several aquatic life studies of the upper Yampa River main stem in 1975; (Prewitt and Carlson 1975; Ames 1977; Prewitt 1977; Carlson et al. 1979). These surveys reported a total of 11 fish species (Table 22) and 98 macroinvertebrate taxa (Table 21) from four localities along the Yampa River (Figure 34).

As a result of studies conducted for the Yampa Project, Stearns-Roger reported on several fish surveys near Hayden (Figure 34). A total of 12 fish species was reported. The studies were directed toward assessment of potential impacts of water diversion by the Hayden Power Plant. It was concluded that the entrainment/impingement effects of future operation on the aquatic life of the Yampa River would be below measurable levels.



PUBLICATIONS

1. Baily and Alberti 1952
2. Klein 1957
3. Burkhard 1966
4. Oblad 1969
5. Wentz 1974
6. Eddy 1975
7. Prewitt and Carlson 1975
8. Sterns-Roger 1975
9. BLM 1976
10. Ames 1977
11. Prewitt 1977
12. Sterns-Roger 1978
13. Carlson et al. 1979
14. Peabody 1980
15. Pittsburg and Midway 1980
16. Wu et al. 1982
17. Lytle et al. 1982
18. Martinez et al. 1984

FIGURE 34. AQUATIC LIFE SAMPLING STATIONS WITHIN THE UPPER YAMPA RIVER BASIN AND MINOR TRIBUTARIES.

TABLE 21. AQUATIC MACROINVERTEBRATES REPORTED FROM THE UPPER YAMPA RIVER BASIN INCLUDING THE MINOR TRIBUTARIES

Taxa	Literature Source									
	Baily and Alberti 1952	Burkhard 1966	Oblad 1969	Wentz 1974	Eddy 1975	BLM 1976	Ames 1977	Peabody 1980	Pittsburg and Midway 1980	Wu et al. 1982
Tricladida										
Planariidae										
Phagocata sp.						X				
Nematoda		X								
Oligochaeta		X								
Lumbriculidae										
Tubificidae						X		X	X	
Hirudinea						X			X	
Erpobdellidae				X	X	X		X	X	
Glossiphonia sp.						X				
Amphipoda								X		
Gammaridae									X	
Gammerus lacustris										
Hyallela azteca						X		X		
Hydracarina						X		X		
Plecoptera	X	X			X	X		X	X	
Capniidae		X		X					X	
Capnia coloradensis			X							
Capnia confusa			X							
Capnia gracilaria			X							
Capnia limata			X							
Capnia sp.										
Eucapnopsis brevicauda			X				X	X		
Paracapnia angulata			X							
Utacapnia lemoniana			X							
Utacapnia logana			X							
Utacapnia poda			X							
Chloroperlidae										
Alloperla severa			X							
Alloperla sp.					X	X	X	X		
Paraperla frontalis			X							
Suwallia lineosa			X							
Suwallia pallidula			X							
Sweltsa borealis			X							
Sweltsa coloradensis			X							
Sweltsa lamba			X							
Triznaka diversa			X							
Triznaka pintada			X							
Triznaka signata			X							
Leuctridae										
Paraleuctra occidentalis			X							
Paraleuctra sara			X							

(continued)

TABLE 21. (continued)

Taxa	Baily and Alberti 1952	Burkhard 1966	Oblad 1969	Wentz 1974	Eddy 1975	BLM 1976	Ames 1977	Peabody 1980	Pittsburg and Midway 1980	Wu et al. 1982
					Literature Source					
Nemouridae										
Amphinemura venusta			X							
Malenka californica			X							
Malenka coloradensis			X							
Nemoura sp.					X	X	X	X		
Podmosta decepta			X							
Podmosta delicatula			X							
Prostoia besametsa			X							
Zapada cinctipes			X							
Zapada haysi			X							
Zapada oregonensis			X							
Perlidae										
Acroneuria sp.					X		X			
Claassenia sabulosa			X				X			
Claassenia sp.					X					
Hesperoperla pacifica			X							
Perlodidae										
Arcynopteryx parallela			X							
Arcynopteryx signata			X							
Arcynopteryx sp.					X		X			
Cultus aestivalis			X							
Diura knowltoni			X							
Isogenoides elongatus			X							
Isogenus sp.					X		X			
Isoperla ebria			X							
Isoperla fulva			X							
Isoperla patricia			X			X		X		
Isoperla pinta			X							
Isoperla 5-punctata			X							
Isoperla sp.					X		X			
Pteronarcidae										
Pteronarcella badia			X				X			
Pteronarcella sp.					X					
Pteronarcys californica			X				X			
Pteronarcys sp.					X					
Taeniopterygidae										
Brachyptera sp.							X			
Taenionema nigripennis			X							
Taenionema pacifica			X							
Ephemeroptera	X	X		X					X	
Baetidae										
Baetis sp.					X	X	X	X		
Callibaetis sp.						X		X		
Pseudocloeon sp.					X		X			

(continued)

TABLE 21. (continued)

Taxa	Literature Source									
	Baily and Alberti 1952	Burkhard 1966	Oblad 1969	Wentz 1974	Eddy 1975	BLM 1976	Ames 1977	Peabody 1980	Pittsburg and Midway 1980	Wu et al. 1982
Caenidae										
Brachycercus sp.							X			
Caenis sp.							X			
Ephemerellidae										
Ephemerella grandis							X			
Ephemerella hecuba							X			
Ephemerella inermis							X			
Ephemerella sp.					X					
Ephemeridae										
Ephemera simulans							X			
Heptageniidae										
Epeorus sp.							X			
Heptagenia sp.					X		X	X		
Rhithrogena sp.					X		X			
Stenonema sp.					X					
Leptophlebiidae							X			
Choroterpes albiannulata										
Choroterpes sp.					X					
Paraleptophlebia sp.					X		X	X		
Polymitarcidae							X			
Ephoron album							X			
Siphlonuridae										
Ameletus sp.							X			
Tricorythidae							X			
Tricorythodes minutus							X			
Tricorythodes sp.					X			X		
Odonata		X								
Coenagrionidae										
Enallagma sp.						X		X		
Ischnura sp.						X		X		
Gomphidae										
Ophiogomphus sp.							X			
Hemiptera		X							X	
Corixidae					X		X			
Graptocorixa sp.						X		X		
Hesperocorixa sp.						X		X		
Gerridae					X					
Notonectidae										
Notonecta sp.						X		X		
Veliidae										
Microvelia sp.						X		X		
Rhagovelia sp.							X			
Trichoptera	X	X		X					X	
Brachycentridae										
Brachycentrus sp.					X			X		

(continued)

TABLE 21. (continued)

Taxa	Literature Source									
	Baily and Alberti 1952	Burkhard 1966	Oblad 1969	Wentz 1974	Eddy 1975	BLM 1976	Ames 1977	Peabody 1980	Pittsburg and Midway 1980	Wu et al. 1982
Glossosomatidae										
Agapetus sp.					X					
Glossosoma sp.							X			
Protoptila sp.					X		X			
Helicopsychidae										
Helicopsyche sp.					X		X			
Hydropsychidae										
Arctopsyche sp.					X		X			
Cheumatopsyche sp.					X	X	X			
Hydropsyche sp.					X	X	X	X		
Parapsyche sp.					X		X			
Hydroptilidae										
Agraylea sp.					X			X		
Hydroptila sp.							X			
Leucotrichia sp.					X		X			
Neotrichia sp.							X			
Lepidostomatidae										
Lepidostoma sp.					X		X			
Leptoceridae										
Athripsodes sp.					X					
Oecetis sp.					X		X			
Triaenodes sp.							X			
Limnephilidae										
Drusinus sp.							X			
Hesperophylax sp.						X		X		
Limnephilus sp.						X		X		
Platycentropus sp.							X			
Polycentropodidae										
Neureclipsis sp.					X		X			
Polycentropus sp.					X					
Psychomyidae										
Psychomyia sp.							X			
Lepidoptera										
Pyralidae										
Cataclysta sp.					X		X			
Coleoptera	X	X		X					X	
Dytiscidae						X				
Agabinus sp.						X		X		
Agabus sp.								X		
Derovatellus sp.							X			
Hydroporus sp.						X		X		
Hydrovatus sp.							X			
Elmidae					X					
Cleptelmis sp.								X		
Dubiraphia sp.					X	X	X	X		
Heterlimnius sp.						X		X		

(continued)

TABLE 21. (continued)

Taxa	Baily and Alberti 1952	Burkhard 1966	Oblad 1969	Wentz 1974	Eddy 1975	BLM 1976	Ames 1977	Peabody 1980	Pittsburg and Midway 1980	Wu et al. 1982
					Literature Source					
Microcylloepus sp.							X			
Optioservus sp.					X	X	X	X		
Zaitzevia sp.					X		X			
Haliplidae						X		X		
Brychius sp.							X			
Haliplus sp.							X			
Hydraenidae							X			
Ochthebius sp.										
Hydrophilidae							X			
Helophorus sp.										
Diptera	X	X					X		X	
Anthomyiidae										
Limnophora aquefrons						X		X		
Blepharoceridae							X			
Ceratopogonidae							X			
Bezzia sp.					X					
Chironomidae				X		X		X		
Ablabesmyia sp.					X					
Cardiocladius sp.					X					
Chironomus sp.					X		X			
Constempellina sp.					X		X			
Cricotopus sp.					X		X			
Cryptochironomus sp.							X			
Diamesa sp.					X		X			
Dicrotendipes sp.							X			
Endochironomus sp.							X			
Eukiefferiella sp.					X		X			
Glyptotendipes sp.					X					
Heterotrissocladius sp.					X					
Micropsectra sp.					X		X			
Microtendipes sp.					X		X			
Monodiamesa sp.					X					
Orthocladius sp.					X		X			
Parachironomus sp.					X		X			
Paracladopelma sp.					X					
Paratanytarsus sp.					X					
Paratendipes sp.					X					
Pentaneura sp.					X					
Phaenopsectra sp.							X			
Polypedilum sp.					X					
Psectrocladius sp.					X		X			
Pseudochironomus sp.					X					
Pseudosmittia sp.					X		X			
Rheotanytarsus sp.					X					
Smittia sp.					X		X			
Stenochironomus sp.					X					
							X			

(continued)

TABLE 21. (continued)

Taxa	Baily and Alberti 1952	Burkhard 1966	Oblad 1969	Wentz 1974	Eddy 1975	BLM 1976	Ames 1977	Peabody 1980	Pittsburg and Midway 1980	Wu et al. 1982
Stictochironomus sp.					X					
Tanytarsus sp.					X					
Thienemanniella sp.					X					
Tribelos sp.					X					
Trichocladius sp.					X		X			
Deuterophlebiidae					X					
Dolichopodidae							X			
Empididae							X			
Hemerodromia sp.					X		X			
Ephydridae						X		X		
Psychodidae							X			
Pericoma sp.										
Rhagionidae					X		X			
Atherix sp.										
Atherix variegata					X					
Simuliidae							X			
Simulium arcticum				X				X		
Simulium argus							X			
Simulium bivittatum							X			
Simulium sp.							X			
Simulium venustum					X	X				
Simulium virgatum							X			
Simulium vittatum							X			
Stratiomyidae							X			
Euparyphus sp.								X		
Stratiomys sp.								X		
Tabanidae							X			
Chrysops sp.										
Tanyderidae								X		
Protanyderus sp.										
Tipulidae							X			
Dicranota sp.										
Eriocera sp.						X		X		
Hexatoma sp.						X		X		
Ormosia sp.					X		X			
Tipula sp.					X					
Gastropoda					X	X		X		
Lymnaeidae		X		X					X	
Lymnaea bulimoides										
Lymnaea elodes										X
Lymnaea modicella										X
Lymnaea sp.										X
Physidae						X		X		
Aplexa hypnorum										
Physa gyrina										X
Physa sp.						X		X		X

(continued)

TABLE 21. (continued)

Taxa	Baily and Alberti 1952	Burkhard 1966	Oblad 1969	Wentz 1974	Eddy 1975	BLM 1976	Ames 1977	Peabody 1980	Pittsburg and Midway 1980	Wu et al. 1982
						Literature Source				
Physa virgata										X
Planorbidae										
Helisoma campanulata						X		X		
Helisoma trivolvis										X
Ancilidae										
Ferrissia rivularis										X
Pelecypoda		X							X	
Sphaeriidae										
Pisidium casertanum										X
Pisidium compressum										X
Pisidium sp.						X		X		
Sphaerium sp.						X		X		
Total number of taxa reported	5	12	46	8	75	42	98	49	13	10

TABLE 22 . FISH REPORTED FROM THE UPPER YAMPA RIVER BASIN INCLUDING THE MINOR TRIBUTARIES

Taxa	Literature Source										
	Baily and Alberti 1952	Klein 1957	Andrews 1970	Prewitt and Carlson 1975	Stearns-Roger 1975	Prewitt 1977	Stearns-Roger 1978	Carlson et al. 1979	Pittsburg and Midway 1980	Lytle et al. 1982	CDOW Data File
Mountain whitefish	X	X	X	X	X		X	X			X
Brook trout		X	X								X
Brown trout	X	X			X					X	X
Cutthroat trout	X										X
Rainbow trout	X	X	X	X	X		X	X	X		X
Carp								X			X
Roundtail chub					X		X	X			X
Fathead minnow			X		X						X
Colorado squawfish	X										
Speckled dace	X			X	X			X	X		X
Redside shiner			X		X			X			
Creek chub					X				X		
Longnose sucker											
White sucker			X	X	X	X	X	X			
Bluehead sucker	X		X	X	X	X					X
Flannelmouth sucker	X			X	X	X	X	X			X
Mountain sucker									X		X
Mottled sculpin	X	X	X	X	X			X	X		X

An environmental impact statement by the BLM (1976) contained aquatic life survey information for several areas of the upper Yampa River basin (Figure 34). This information was also included in mine plan submittals by Seneca Coals, Ltd. (1980) and Pittsburg and Midway Coal Company (1980). A total of 49 macroinvertebrate taxa were reported from the Senaca site near Hayden (Seneca Coals, Ltd. 1980). While no discussion of fish populations was included in the mine plan applications, several fish eggs and larvae were collected in the Grassy Creek macroinvertebrate samples. A total of five fish species was reported from Oak Creek stations (Pittsburgh and Midway Coal Company 1980). The macroinvertebrate analysis was limited, with only 13 major taxa reported (Table 21).

Lytle et al. (1982) sampled three upper Yampa River tributaries (Figure 34) in search of Colorado River cutthroat trout. Only brook trout were collected.

Wu et al. (1982) reported 10 species of aquatic clams and snails from the upper Yampa River and minor tributaries.

The CDOW has sampled fish extensively throughout the upper Yampa River basin (Figure 35). A total of 13 taxa has been reported to date (Table 22). This number should be considered low because many specimens were only determined to the family level (i.e., suckers, minnows). The reported fish distribution within the upper Yampa River basin is presented in Figure 36.

Aquatic Habitat

The headwaters of the upper Yampa River consist of lakes and small mountain streams of the Gore Range and Flattop regions of Routt County. The majority of the minor tributaries to the upper Yampa River are small, cold, perennial streams. Downstream from Steamboat Springs, the Yampa River valley becomes wider and the minor tributaries become more intermittent in nature. No aquatic habitat studies are available for the upper Yampa River main stem or the minor tributaries.

The CDOH has divided the upper Yampa River into two aquatic use classifications, cold water classes 1 and 2. The aquatic macroinvertebrates reported from these two types are listed in Table 23.

TROUT CREEK

Trout Creek drains about 400 square miles in a northerly direction to the Yampa River near Milner (Figure 37). Trout Creek basin has been the site of more aquatic life studies than any other portion of the upper Yampa River basin. This increased effort has been the result of the active coal mining within the basin and the resultant monitoring of potential development impacts on the aquatic system.

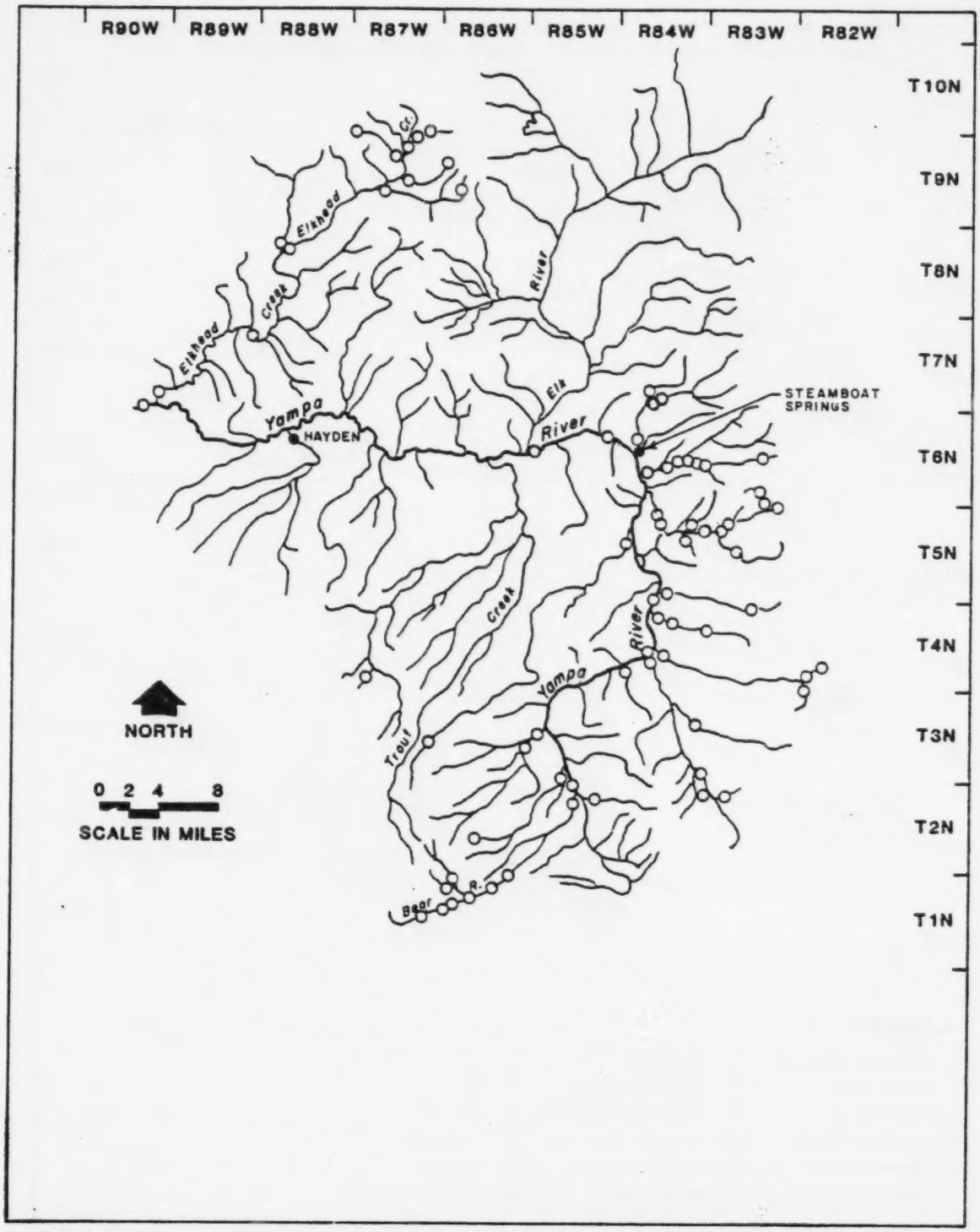
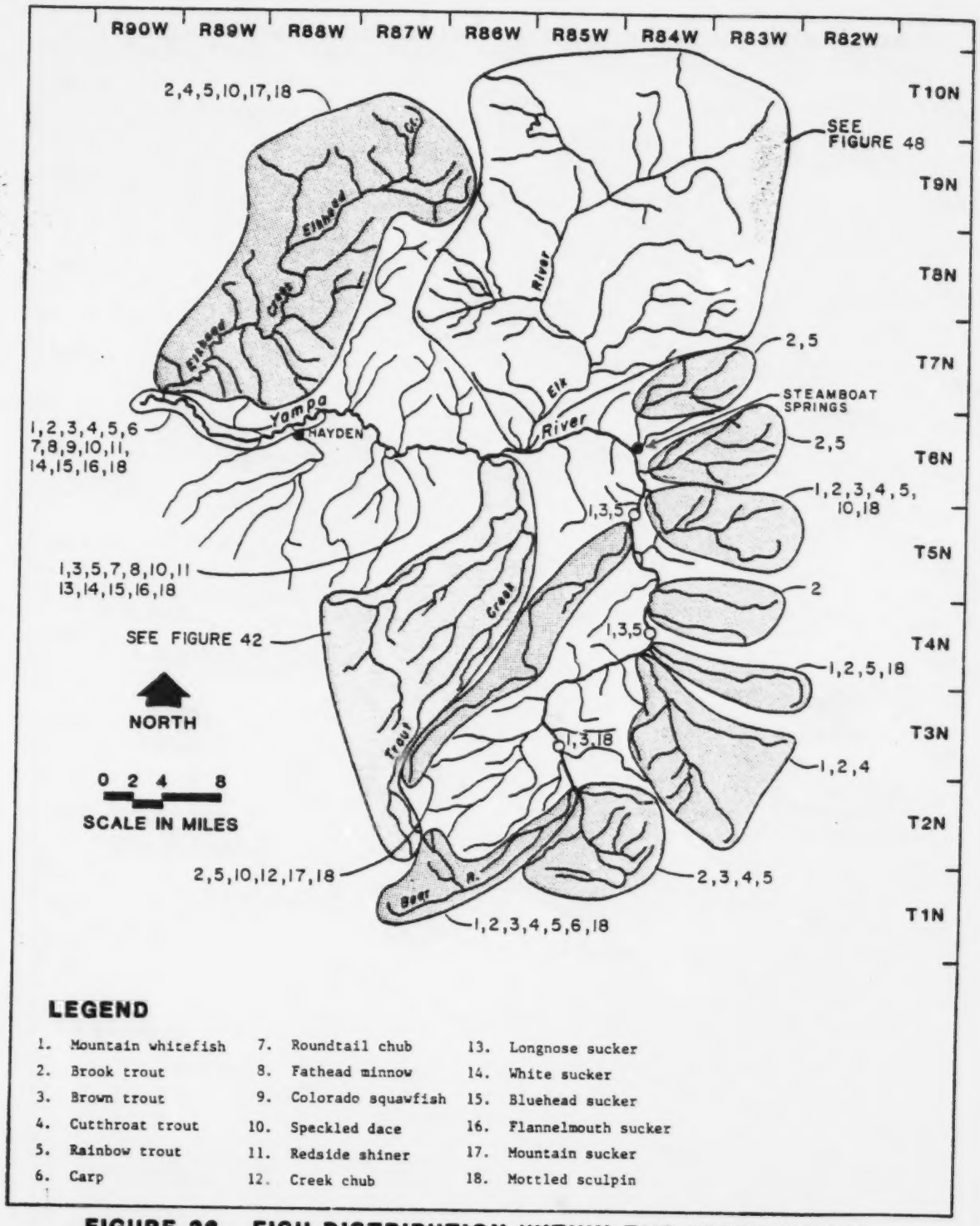


FIGURE 35. CDOW FISH SAMPLING LOCATIONS WITHIN THE UPPER YAMPA RIVER BASIN AND MINOR TRIBUTARIES.



LEGEND

1. Mountain whitefish	7. Roundtail chub	13. Longnose sucker
2. Brook trout	8. Fathead minnow	14. White sucker
3. Brown trout	9. Colorado squawfish	15. Bluehead sucker
4. Cutthroat trout	10. Speckled dace	16. Flannelmouth sucker
5. Rainbow trout	11. Redside shiner	17. Mountain sucker
6. Carp	12. Creek chub	18. Mottled sculpin

FIGURE 36. FISH DISTRIBUTION WITHIN THE UPPER YAMPA RIVER BASIN AND MINOR TRIBUTARIES.

TABLE 23. AQUATIC MACROINVERTEBRATE DISTRIBUTION WITHIN CDOH AQUATIC LIFE USE CLASSIFICATIONS FOR THE UPPER YAMPA RIVER BASIN INCLUDING THE MINOR TRIBUTARIES

Taxa	USE CLASSIFICATION Coldwater Class 1	Coldwater Class 2
Tricladida		
Planariidae		
Phagocata sp.		X
Nematoda	X	
Oligochaeta		
Lumbriculidae	X	
Tubificidae		X
Hirudinea	X	X
Erpobdellidae		X
Glossiphonia sp.		X
Amphipoda	X	
Gammaridae		
Gammerus lacustris		X
Hyallela azteca		X
Hydracarina	X	X
Plecoptera		
Capniidae		
Capnia coloradensis	X	
Capnia confusa	X	
Capnia gracilaria	X	
Capnia limata	X	
Capnia sp.	X	X
Eucapnopsis brevicauda	X	
Paracapnia angulata	X	
Utacapnia lemoniana	X	
Utacapnia logana	X	
Utacapnia poda	X	
Chloroperlidae		
Alloperla severa	X	
Alloperla sp.	X	X
Paraperla frontalis	X	
Suwallia lineosa	X	
Suwallia pallidula	X	
Sweltsa borealis	X	
Sweltsa coloradensis	X	
Sweltsa lamba	X	
Triznaka diversa	X	
Triznaka pintada	X	
Triznaka signata	X	

(continued)

TABLE 23. (continued)

Taxa	USE CLASSIFICATION Coldwater Class 1	Coldwater Class 2
Leuctridae		
Paraleuctra occidentalis	X	
Paraleuctra sara	X	
Nemouridae		
Amphinemura venusta	X	
Malenka californica	X	
Malenka coloradensis	X	
Nemoura sp.	X	X
Podmosta decepta	X	
Podmosta delicatula	X	
Prostoia besametsa	X	
Zapada cinctipes	X	
Zapada haysi	X	
Zapada oregonensis	X	
Perlidae		
Acroneuria sp.	X	
Claassenia sabulosa	X	
Claassenia sp.	X	
Hesperoperla pacifica	X	
Perlodidae		
Arcynopteryx parallela	X	
Arcynopteryx signata	X	
Arcynopteryx sp.	X	
Cultus aestivalis	X	
Diura knowltoni	X	
Isogenoides elongatus	X	
Isogenus sp.	X	
Isoperla ebria	X	
Isoperla fulva	X	
Isoperla patricia	X	X
Isoperla pinta	X	
Isoperla 5-punctata	X	
Isoperla sp.	X	
Pteronarcidae		
Pteronarcella badia	X	
Pteronarcella sp.	X	
Pteronarcys californica	X	
Pteronarcys sp.	X	
Taeniopterygidae		
Brachyptera sp.	X	
Taenionema nigripennis	X	
Taenionema pacifica	X	

(continued)

TABLE 23. (continued)

Taxa	USE CLASSIFICATION Coldwater Class 1	Coldwater Class 2
Ephemeroptera		
Baetidae		
Baetis sp.	X	X
Callibaetis sp.		X
Pseudocloeon sp.	X	
Caenidae		
Brachycercus sp.	X	
Caenis sp.	X	
Ephemerellidae		
Ephemerella grandis	X	
Ephemerella hecuba	X	
Ephemerella inermis	X	
Ephemerella sp.	X	
Ephemeridae		
Ephemera simulans	X	
Heptageniidae		
Epeorus sp.	X	
Heptagenia sp.	X	X
Rhithrogena sp.	X	
Stenonema sp.	X	
Leptophlebiidae		
Choroterpes albiannulata	X	
Choroterpes sp.	X	
Paraleptophlebia sp.	X	X
Polymitarcidae		
Ephoron album	X	
Siphlonuridae		
Ameletus sp.	X	
Tricorythidae		
Tricorythodes minutus	X	
Tricorythodes sp.	X	X
Odonata		
Coenagrionidae		
Enallagma sp.		X
Ischnura sp.		X
Gomphidae		
Ophiogomphus sp.	X	
Hemiptera		
Corixidae		
Graptocorixa sp.		X
Hesperocorixa sp.		X
Gerridae	X	

(continued)

TABLE 23. (continued)

Taxa	USE CLASSIFICATION Coldwater Class 1	Coldwater Class 2
Notonectidae		
Notonecta sp.		X
Veliidae		
Microvelia sp.		X
Rhagovelia sp.	X	
Trichoptera		
Brachycentridae		
Brachycentrus sp.	X	X
Glossosomatidae		
Agapetus sp.	X	
Glossosoma sp.	X	
Protoptila sp.	X	
Helicopsychidae		
Helicopsyche sp.	X	
Hydropsychidae		
Arctopsyche sp.	X	
Cheumatopsyche sp.	X	
Hydropsyche sp.	X	X
Parapsyche sp.	X	
Hydroptilidae		
Agraylea sp.	X	X
Hydroptila sp.	X	
Leucotrichia sp.	X	
Neotrichia sp.	X	
Lepidostomatidae		
Lepidostoma sp.	X	
Leptoceridae		
Athripsodes sp.	X	
Oecetis sp.	X	
Triaenodes sp.	X	
Limnephilidae		
Drusinus sp.	X	
Hesperophylax sp.		X
Limnephilus sp.		X
Platycentropus sp.	X	
Polycentropodidae		
Neureclipsis sp.	X	
Polycentropus sp.	X	
Psychomyidae		
Psychomyia sp.	X	
Lepidoptera		
Pyralidae		
Cataclysta sp.	X	

(continued)

TABLE 23. (continued)

Taxa	USE CLASSIFICATION Coldwater Class 1	Coldwater Class 2
Coleoptera		
Dytiscidae		
Agabinus sp.		X
Agabus sp.		X
Derovatellus sp.	X	
Hydroporus sp.		X
Hydrovatus sp.	X	
Elmidae		
Cleptelmis sp.		X
Dubiraphia sp.	X	X
Heterlimnius sp.		X
Microcylloepus sp.	X	
Optioservus sp.	X	X
Zaitzevia sp.	X	
Haliplidae		X
Brychias sp.	X	
Haliplus sp.	X	
Hydraenidae		
Ochthebius sp.	X	
Hydrophilidae		
Helophorus sp.	X	
Diptera		
Anthomyiidae		
Limnophora aquefrons		X
Blepharoceridae	X	
Ceratopogonidae		
Bezzia sp.	X	
Chironomidae	X	X
Ablabesmyia sp.	X	
Cardiocladius sp.	X	
Chironomus sp.	X	
Constempellina sp.	X	
Cricotopus sp.	X	
Cryptochironomus sp.	X	
Diamesa sp.	X	
Dicrotendipes sp.	X	
Endochironomus sp.	X	
Eukiefferiella sp.	X	
Glyptotendipes sp.	X	
Heterotrissocladius sp.	X	
Micropsectra sp.	X	
Microtendipes sp.	X	
Monodiamesa sp.	X	

(continued)

TABLE 23. (continued)

Taxa	USE CLASSIFICATION Coldwater Class 1	Coldwater Class 2
Orthocladius sp.	X	
Parachironomus sp.	X	
Paracladopelma sp.	X	
Paratanytarsus sp.	X	
Paratendipes sp.	X	
Pentaneura sp.	X	
Phaenopsectra sp.	X	
Polypedilum sp.	X	
Psectrocladius sp.	X	
Pseudochironomus sp.	X	
Pseudosmittia sp.	X	
Rheotanytarsus sp.	X	
Smittia sp.	X	
Stenochironomus sp.	X	
Stictochironomus sp.	X	
Tanytarsus sp.	X	
Thienemanniella sp.	X	
Tribelos sp.	X	
Trichocladius sp.	X	
Deuterophlebiidae	X	
Dolichopodidae	X	
Empididae		
Hemerodromia sp.		X
Ephydridae	X	
Psychodidae		
Pericoma sp.	X	
Rhagionidae		
Atherix sp.	X	
Atherix variegata	X	
Simuliidae		
Simulium arcticum		X
Simulium argus	X	
Simulium bivittatum	X	
Simulium sp.	X	
Simulium venustum	X	
Simulium virgatum	X	
Simulium vittatum	X	
Stratiomyidae	X	
Euparyphus sp.		X
Stratiomys sp.		
Tabanidae		
Chrysops sp.		X

(continued)

TABLE 23. (continued)

Taxa	USE CLASSIFICATION Coldwater Class 1	Coldwater Class 2
Tanyderidae		
Protanyderus sp.	X	
Tipulidae		
Dicranota sp.		X
Eriocera sp.		X
Hexatoma sp.	X	
Ormosia sp.	X	
Tipula sp.	X	X
Gastropoda		
Lymnaeidae		
Lymnaea bulimoides	X	
Lymnaea elodes	X	
Lymnaea modicella	X	
Lymnaea sp.		X
Physidae		
Aplexa hypnorum	X	
Physa gyrina	X	
Physa sp.		X
Physa virgata	X	
Planorbidae		
Helisoma campanulata		X
Helisoma trivolvis	X	
Ancilidae		
Ferrissia rivularis	X	
Pelecypoda		
Sphaeriidae		
Pisidium casertanum	X	
Pisidium compressum	X	
Pisidium sp.		X
Sphaerium sp.		X

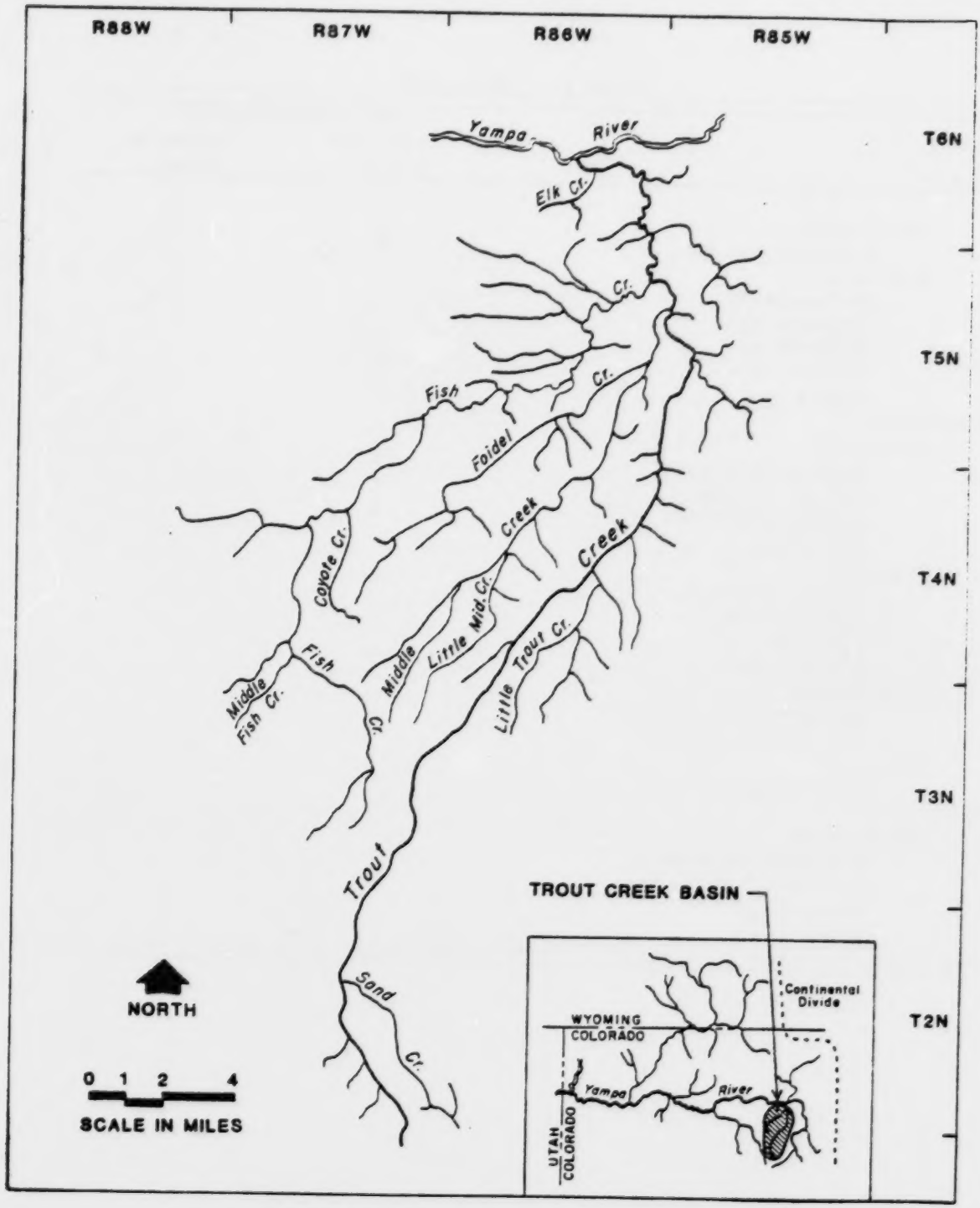


FIGURE 37. TROUT CREEK BASIN.

Hydrology

No stream gaging stations are located on the main stem of Trout Creek. Several gaging sites have been located on the tributaries that join Trout Creek (Figure 38). These sites include: Middle Creek near Oak Creek, Foidel Creek near Oak Creek, Foidel Creek at mouth near Oak Creek, and Fish Creek near Milner (Station Nos. 09243700, 09243800, 09243900, and 09244100, respectively). This sequence of stream gages has been utilized because of their proximity to coal mines in the basin, including: the Edna Mine, the Energy Mines (#1,#2, #3, Eckman Park, and Middle Creek) the Apex Mine, the Meadows Mine, the Seneca Mine, and the Trout Creek Mine. These stream gages will continue to provide information concerning the effects of coal mining.

The drainage area for Fish Creek at the gaging station is 34.5 square miles. Streamflow on Fish Creek is perennial with the snow melt/increased runoff period occurring in the period from March through June. Peak flow generally occurs during the month of May, which is typical for the high elevation streams in the Yampa River basin. The base flow period in the stream extends from July through February at a constant rate, and is indicative of sufficient annual ground water storage and recharge to maintain streamflow.

The streamflow records for Foidel Creek indicate that, on the average, streamflow occurs during each month, although there are several observations of no flow in the stream (Appendix B). Foidel Creek is, therefore, considered to be an intermittent stream. The drainage area of Foidel Creek at its mouth, near Oak Creek (Station No. 09243900) is 17.5 square miles. The snowmelt/increased runoff period in the Foidel Creek basin has been observed to occur from February through July, with the greatest flow occurring generally in April. The Foidel Creek drainage basin occurs at lower elevations than the Fish Creek basin, which experiences a delayed snowmelt peak flow during May. The low flow recorded in Foidel Creek (September through January) shows the typical increase in flow in October that is indicative of the end of the irrigation season.

Water Quality

The available Trout Creek water quality data are more extensive than any of the other Yampa River subbasins. Long-term recent data is available at three stations for the 1978 through 1983 period (Figure 38) and several summary reports are available.

McWhorter et al. (1975) identified potential water quality problems associated with runoff and percolation through mine spoils at the Edna Mine. Soluble salts were determined to be the most significant contribution to surface waters from coal mining activities. The single season total salt contribution from the Edna Mine complex was about one-third of that expected from an equal area of Grand Valley irrigated crop land.

Skogerboe et al. (1979) summarized two years of monthly water quality sampling along Trout Creek near the Edna Mine complex. Increases in Trout Creek parameter concentrations were in direct proportion to increase in

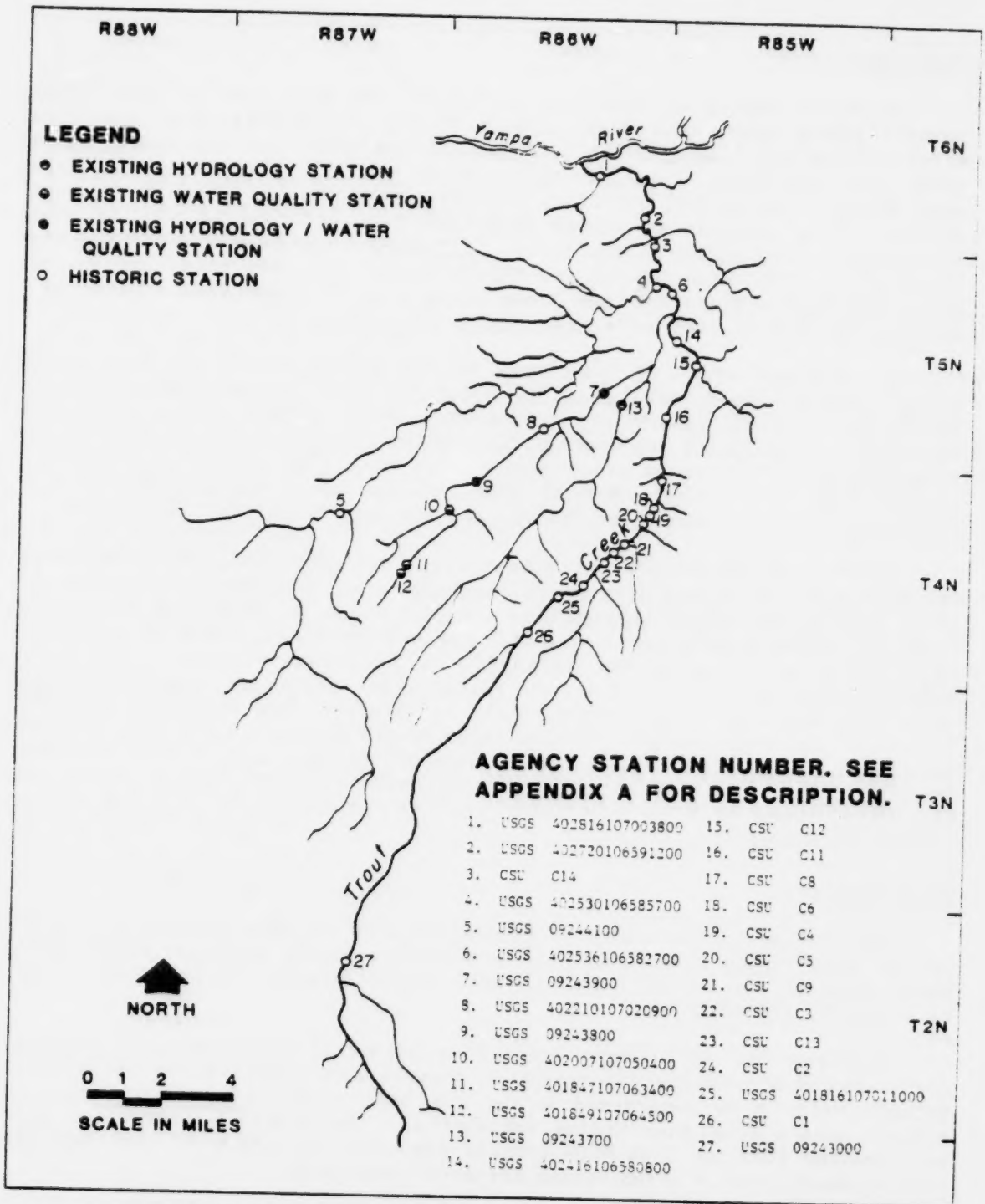


FIGURE 38. TROUT CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

discharge. Increases in dissolved solids appeared to be dependant on the extent of weathering of the disturbed area. The greatest impacts on water quality occur during spring snowmelt at the mine site.

Turk and Parker (1982) developed regression equations and constants for ion concentration versus specific conductance relationships based on samples from three locations within Trout Creek basin. They concluded that the primary water quality impacts resulting from coal mine operations were elevated sulfate levels downstream from the mine.

The CDOH has divided the Trout Creek basin into two segments along the Routt/Arapahoe National Forests boundary (Figure 39). The use classifications are the same for both segments but the numeric standards are higher (more lenient) for the downstream segment. Several parameters, including zinc, copper, dissolved oxygen, iron and sulfate, exceeded the CDOH numeric standards during the 1978 through 1983 analyzed period. In general, parameter values for the Trout Creek basin were higher than corresponding values from adjacent Yampa River stations.

Aquatic Life

Numerous publications have been prepared based on aquatic life studies within the Trout Creek basin (Table 24). The majority of the studies have been centered around the Edna Mine complex which is operated by Pittsburg and Midway Coal Company (Figure 40).

TABLE 24. AQUATIC LIFE STUDIES WITHIN THE TROUT CREEK BASIN

Periphyton	Macroinvertebrates	Fish	Literature Source
	X		Oblad 1969
	X		Wentz 1974
	X		Canton and Ward 1977
	X		Canton and Ward 1978
	X		Ward et al. 1978
	X		Canton and Ward 1979
	X	X	Energy Fuels 1979
		X	Goettl and Edde 1980
X	X	X	Pittsburg and Midway 1980
	X		Canton and Ward 1981a
	X		Canton and Ward 1981b
	X		Canton and Ward 1981c
	X		Canton and Chadwick 1983
		X	CDOW Data Files

The first aquatic life collections within the basin were those of Oblad (1969) during his survey of stoneflies of the Yampa River basin. He reported 11 species (Table 25) from three localities within the basin (Figure 40).

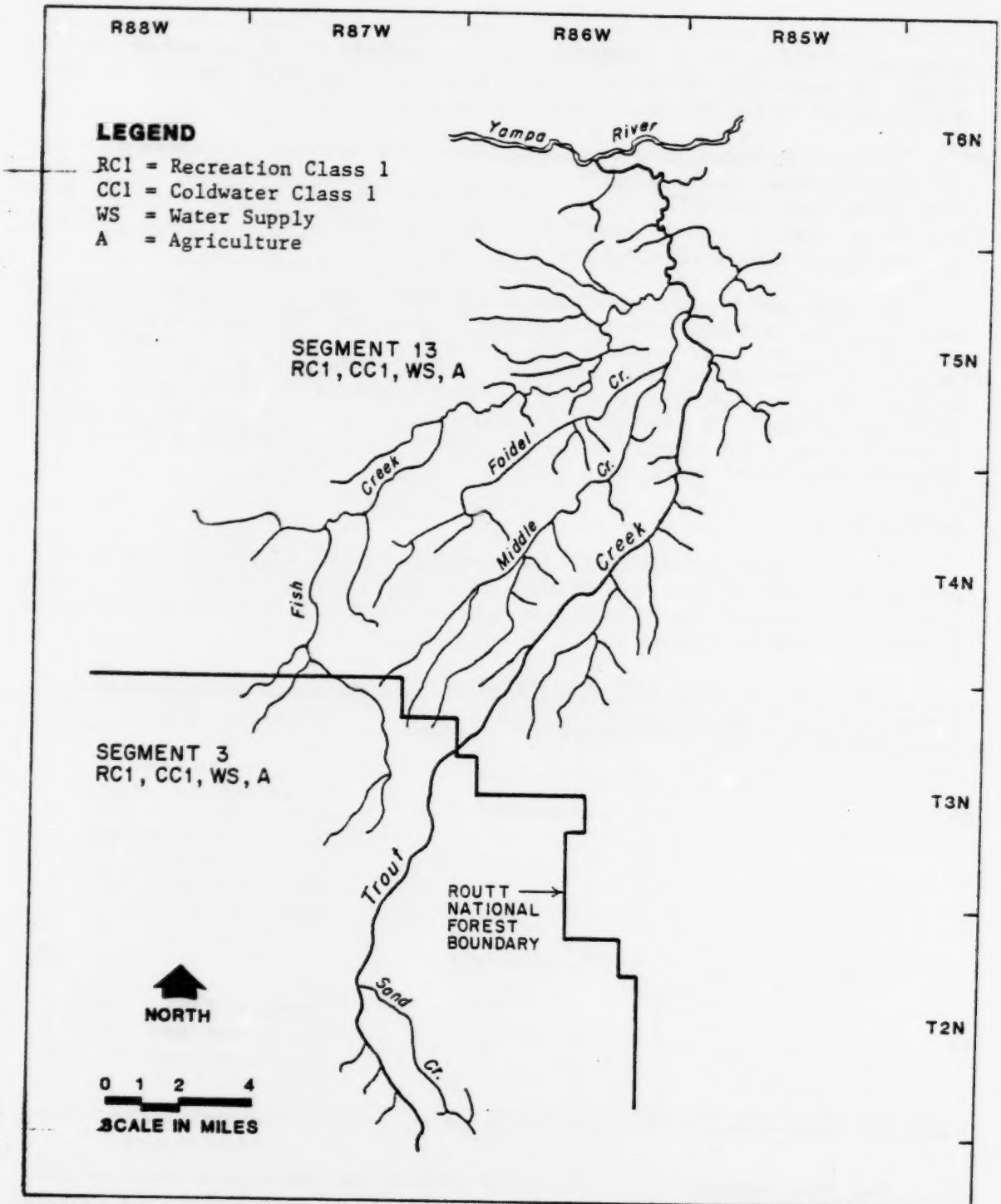


FIGURE 39. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATION WITHIN THE TROUT CREEK BASIN.

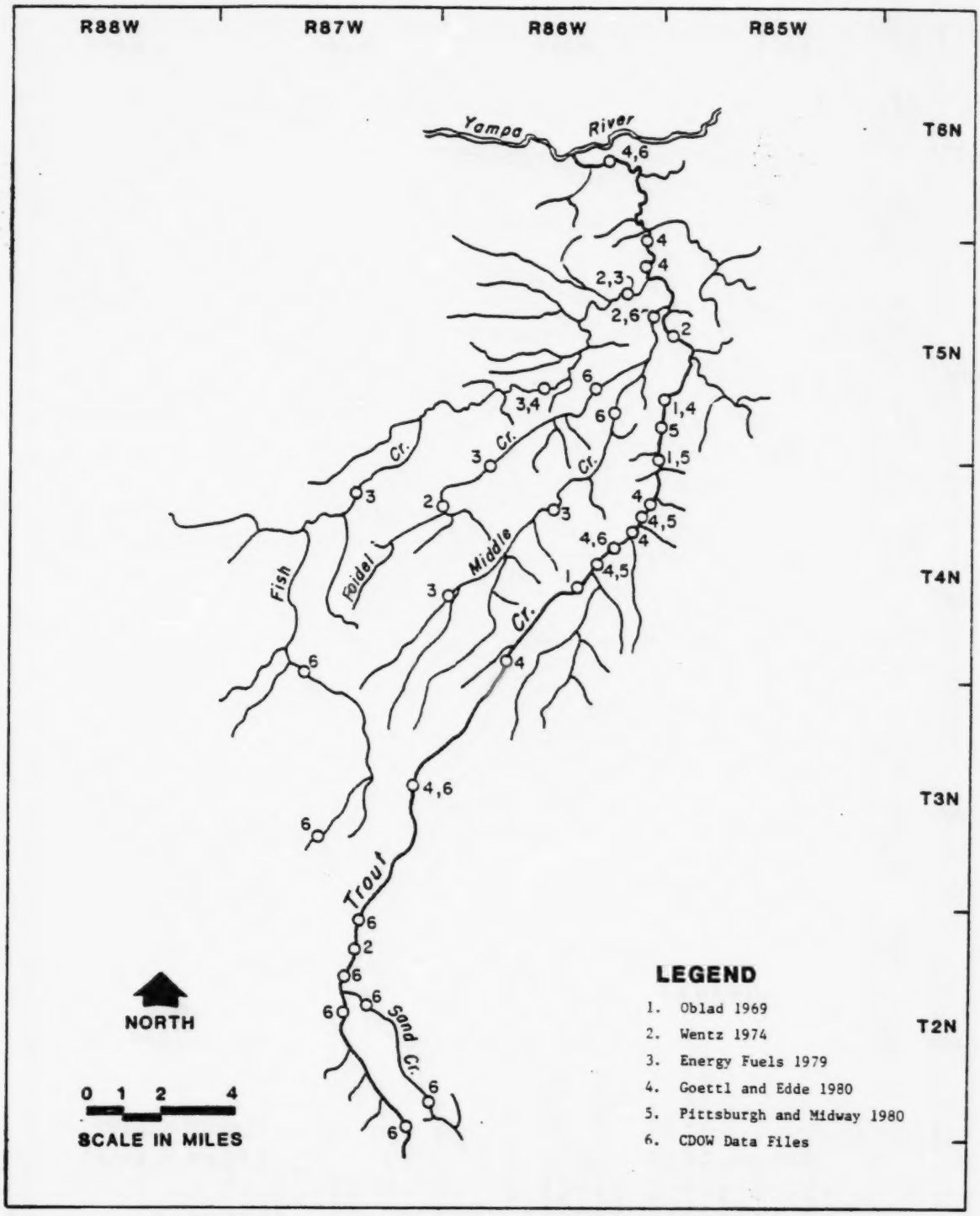


FIGURE 40. AQUATIC LIFE SAMPLING STATIONS WITHIN THE TROUT CREEK BASIN.

TABLE 25. AQUATIC MACROINVERTEBRATES REPORTED FROM TROUT CREEK

Taxa	Oblad 1969	Wentz 1974	Canton and Ward 1977	Canton and Ward 1978	Canton and Ward 1979	Energy Fuels 1979	Pittsburg and Midway 1980	Canton and Ward 1981a	Canton and Ward 1981b	Canton and Ward 1981c	Canton and Chadwick 1983
Tricladida											
Planariidae							X				
Dugesia sp.			X	X							
Nematoda			X	X		X	X				
Oligochaeta						X	X				
Lumbriculidae						X					
Naididae						X					
Tubificidae						X					
Eiseniella tetraedra			X	X	X				X		
Limnodrilus hoffmeisteri					X				X		
Limodrilus sp.			X	X							
Tubifex tubifex					X				X		
Hirudinea										X	
Erpobdellidae											
Erpobdella punctata					X				X		
Glossiphoniidae						X					
Glossiphonia complanata						X				X	
Helobdella stagnalis			X	X	X				X		
Hirudidae											
Macrobdella sp.					X				X		
Amphipoda											
Gammaridae						X					
Talitridae						X					
Hyalella azteca					X				X		
Decapoda											
Astacidae											
Orconectes sp.						X	X				
Hydracarina					X				X		
Hydrachnidae											
Hydrachna sp.			X	X							
Lebertiidae											
Lebertia sp.			X	X							
Limnocharidae											
Limnochares sp.			X	X							
Mideopsidae											
Mideopsis sp.			X	X							
Protziidae											
Protzia sp.			X	X							
Plecoptera		X					X				
Capniidae											
Utacapnia poda	X										

(continued)

TABLE 25. (continued)

Taxa	Oblad 1969	Wentz 1974	Canton and Ward 1977	Canton and Ward 1978	Canton and Ward 1979	Energy Fuels 1979	Pittsburg and Midway 1980	Canton and Ward 1981a	Canton and Ward 1981b	Canton and Ward 1981c	Canton and Chadwick 1983
Chloroperlidae						X					
Alloperla sp.			X	X							
Suwallia pallidula	X										
Sweltsa coloradensis	X										
Triznaka signata	X							X			
Leuctridae											
Leuctra glabra			X	X							
Paraleuctra sara	X		X	X							
Nemouridae						X					
Malenka sp.					X				X		
Podmosta delicatula	X										
Prostoia besametsa	X			X				X			X
Zapada sp.			X	X							
Perlidae											
Acroneuria sp.			X	X							
Claassenia sabulosa	X		X	X							
Perlodidae						X					
Arcynopteryx parallela		X		X	X						
Isogenus sp.			X	X							
Isoperla fulva	X										
Pteronarcidae						X					
Pteronarcella badia	X		X	X							
Pteronarcys californica				X	X						X
Taeniopterygidae											
Brachyptera sp.			X								
Ephemeroptera		X					X				
Baetidae											
Baetis sp.			X	X	X			X	X		
Baetis tricaudatus											X
Callibaetis sp.					X	X			X		
Caenidae											
Caenis sp.					X	X			X		
Ephemerellidae						X					
Ephemerella grandis			X	X							
Ephemerella hecuba			X	X							
Ephemerella inermis			X	X							
Ephemerella infrequens											X
Ephemerella margarita			X	X							
Ephemerella micheneri			X	X							
Heptageniidae											
Epeorus longimanus				X							
Epeorus sp.			X								
Heptagenia sp.						X					
Rhithrogena sp.			X	X				X			

(continued)

TABLE 25. (continued)

Taxa	Oblad 1969	Wentz 1974	Canton and Ward 1977	Canton and Ward 1978	Canton and Ward 1979	Energy Fuels 1979	Pittsburg and Midway 1980	Canton and Ward 1981a	Canton and Ward 1981b	Canton and Ward 1981c	Canton and Chadwick 1983
Leptophlebiidae											
Paraleptophlebia heteronea				X							
Paraleptophlebia sp.			X								
Siphlonuridae											
Ameletus oregonensis			X	X							
Ameletus sparsatus			X	X							
Parameletus sp.						X					
Siphlonurus sp.						X					
Tricorythidae											
Tricorythodes sp.			X	X		X					
Odonata											
Aeschnidae											
Anax sp.					X				X		
Coenagrionidae											
Amphiagrion sp.					X				X		
Enallagma sp.					X				X		
Gomphidae						X					
Ophiogomphus sp.			X	X							
Libellulidae											
Sympetrum corruptum					X				X		
Protoneuridae											
Neoneura sp.					X				X		
Hemiptera											
Corixidae						X				X	
Hesperocorixa laevigata						X					
Naucoridae						X				X	
Notonectidae						X					
Notonecta lobata					X				X		
Notonecta sp.			X	X							
Notonecta unifasciata					X				X		
Veliidae						X					
Megaloptera											
Sialidae											
Sialis sp.					X				X		
Trichoptera	X						X				
Brachycentridae						X		X		X	
Brachycentrus americanus				X							
Brachycentrus sp.			X					X		X	X
Glossosomatidae						X					
Agapetus boulderensis								X		X	
Agapetus sp.				X							
Anagapetus sp.			X								
Glossosoma sp.			X	X							
Glossosoma ventrale			X	X				X		X	X
Helicopsychidae						X					
Helicopsyche sp.			X	X							

(continued)

TABLE 25. (continued)

Taxa	Oblad 1969	Wentz 1974	Canton and Ward 1977	Canton and Ward 1978	Canton and Ward 1979	Energy Fuels 1979	Pittsburg and Midway 1980	Canton and Ward 1981a	Canton and Ward 1981b	Canton and Ward 1981c	Canton and Chadwick 1983
Hydropsychidae											
Arctopsyche grandis						X					
Arctopsyche sp.			X	X				X		X	
Cheumatopsyche sp.			X	X							
Hydropsyche cockerelli									X		X
Hydropsyche occidentalis										X	
Hydropsyche oslari											X
Hydropsyche sp.			X	X				X		X	
Hydroptilidae											
Agraylea multipunctata						X					X
Agraylea sp.					X						X
Hydroptila sp.			X	X					X		
Leucotrichia sp.			X	X				X			
Neotrichia okapa										X	
Neotrichia sp.				X							
Ochrotrichia logana					X					X	
Ochrotrichia sp.											
Lepidostomatidae					X				X		
Lepidostoma knowltoni											
Lepidostoma moneka									X		
Lepidostoma sp.			X	X				X		X	
Leptoceridae											
Nectopsyche sp.						X					
Oecetis avara					X			X			
Oecetis sp.											
Limnephilidae					X					X	
Anabolia bimaculata						X			X		
Dicosmoecus atripes											
Hesperophylax consimilis										X	
Hesperophylax occidentalis										X	
Hesperophylax sp.										X	
Limnephilus sp.			X	X						X	
Neothremma sp.			X	X	X						
Oligophlebodes minutus			X	X					X		
Oligophlebodes sp.											
Onocosmoecus unicolor			X	X							X
Pycnopsyche sp.			X	X							
Philopotamidae										X	
Wormaldia gabriella											
Wormaldia sp.			X	X						X	
Phryganeidae											
Phryganea cinerea					X						
Psychomyidae									X		
Psychomyia sp.			X	X		X					
Rhyacophilidae											
Rhyacophila angelita			X	X							

(continued)

TABLE 25. (continued)

Taxa	Oblad 1969	Wentz 1974	Canton and Ward 1977	Canton and Ward 1978	Canton and Ward 1979	Energy Fuels 1979	Pittsburg and Midway 1980	Canton and Ward 1981a	Canton and Ward 1981b	Canton and Ward 1981c	Canton and Chadwick 1983
Coleoptera							X				
Dryopidae						X					
Helichus sp.			X	X							
Dytiscidae						X					
Agabinus sp.			X	X							
Agabus disintegratus					X				X		
Deronectes sp.			X	X							
Hydaticus sp.			X	X	X				X		
Hydroporus tenebrosus					X				X		
Laccophilus sp.				X							
Oreodytes sp.			X	X							
Tropisternus sp.					X				X		
Elmidae						X					
Narpus sp.			X	X							
Optioservus seriatus				X				X			
Optioservus sp.			X								
Zaitzevia parvula				X				X			
Zaitzevia sp.			X								
Haliplidae											
Brychias sp.			X	X							
Haliplus sp.					X				X		
Hydrophilidae						X					
Diptera							X				
Ceratopogonidae						X					
Bezzia sp.					X						
Palpomyia sp.			X	X	X				X		
Probezzia sp.					X				X		
Chaoboridae									X		
Chaoborus sp.						X					
Chironomidae		X									
Ablabesmyia sp.					X						
Brillia sp.			X	X					X		
Cardiocladius sp.			X	X		X					
Chironomus sp.					X	X			X		
Cricotopus sp.			X	X							
Diamesa sp.			X	X							
Endochironomus sp.						X					
Eukiefferiella sp.			X	X							
Glyptotendipes sp.						X					
Heterotrissocladius sp.				X	X						
Micropsectra sp.						X					
Microtendipes sp.			X	X		X					
Orthocladius sp.			X	X	X						
Paracladopelma sp.						X					
Pentaneura sp.			X	X							
Phaenopsectra sp.					X				X		

(continued)

TABLE 25. (continued)

Taxa	Oblad 1969	Wentz 1974	Canton and Ward 1977	Canton and Ward 1978	Canton and Ward 1979	Energy Fuels 1979	Pittsburg and Midway 1980	Canton and Ward 1981a	Canton and Ward 1981b	Canton and Ward 1981c	Canton and Chadwick 1983
Procladius sp.					X	X			X		
Psectrocladius sp.				X							
Pseudochironomus sp.			X	X							
Pseudodiamesa sp.			X	X							
Rheotanytarsus sp.			X	X							
Tanytarsus sp.					X				X		
Deuterophlebiidae											
Deuterophlebia sp.			X	X							
Empididae					X						
Chelifera sp.			X	X							
Wiedemannia sp.			X	X							
Ephydridae											
Paralimna sp.					X				X		
Muscidae						X					
Psychodidae											
Maruina lanceolata				X							
Pericoma sp.			X	X				X			
Rhagionidae						X					
Atherix variegata			X	X							
Simuliidae		X				X					
Simulium arcticum			X	X							X
Stratiomyidae						X					
Euparyphus sp.			X	X	X				X		
Tabanidae						X					
Tabanus sp.					X				X		
Tipulidae						X					
Antocha sp.			X	X							
Hesperoconopa sp.				X							
Hexatoma sp.			X	X	X				X		
Tipula sp.			X	X	X				X		
Gastropoda							X				
Lymnaeidae											
Lymnaea sp.			X	X	X				X		
Physidae						X					
Physa gyrina								X			
Physa sp.			X	X	X				X		
Planorbidae											
Gyraulus sp.				X	X				X		
Ancylidae						X					
Ferrissia sp.			X	X							
Pelecypoda							X				
Sphaeriidae						X					
Pisidium sp.			X	X							
Pisidium variabile					X				X		
Total number of taxa reported	11	5	89	95	51	59	12	15	51	20	8

Wentz (1974) collected macroinvertebrates at four localities (Figure 40) within Trout Creek basin. A total of five higher taxa was reported (Table 25). Detailed taxonomic determinations were not made.

Canton and Ward (1977, 1978, 1979, 1981a, 1981b, 1981c) documented the effects of Edna Mine operations on the macroinvertebrates of Trout Creek. Sampling was conducted from July 1975 through April 1977 at seven sites along the main stem of Trout Creek and from June 1977 to May 1978 at four ponds in the Edna Mine complex (Figure 41). A total of 167 macroinvertebrate taxa was reported, with 95 taxa reported from the stream stations and 51 taxa being reported from the pond stations. No mine-related detrimental effects on the macroinvertebrate community were noted. Standing crop estimates increased in a downstream direction, as did conductivity measurements. A buffer zone of at least 30 meters existed between mine operations and the aquatic system which was thought to provide the protection necessary to maintain undisturbed aquatic life communities Trout Creek. The conclusions of these studies were reviewed and restated by Ward et al. (1978). No new information was provided.

Energy Fuels (1979), in the mining and reclamation plan for their Energy Mines included macroinvertebrate and fish collection data from three sampling sites on Foidel Creek, one site on Fish Creek, and two sites on Middle Creek. A total of 51 macroinvertebrate taxa was collected during 1975 and 1979 sampling periods (Table 25). A total of six fish species was also reported. Shiners (Notropis sp.) were collected, but species determinations were not made.

During a study designed to document the fish distribution in Trout Creek near the Edna Mine and document the toxic effects of undiluted mine drainage water on rainbow trout, Goettl and Edde (1980) electrofished 11 stations on Trout Creek and 1 station on Fish Creek (Figure 40) during 1975 and 1976. A total of 10 species was collected (Table 26) from Trout Creek and four species were collected from Fish Creek. Negative effects on the fish populations of Trout Creek as a result of the Edna surface mining operations were not noted. It was not possible to separate the mining impacts from other man-induced impacts such as irrigation withdrawals/returns and channelization. The toxicity tests indicated that the mine effluent was not acutely toxic to rainbow trout and trout survived as long as a year in test ponds.

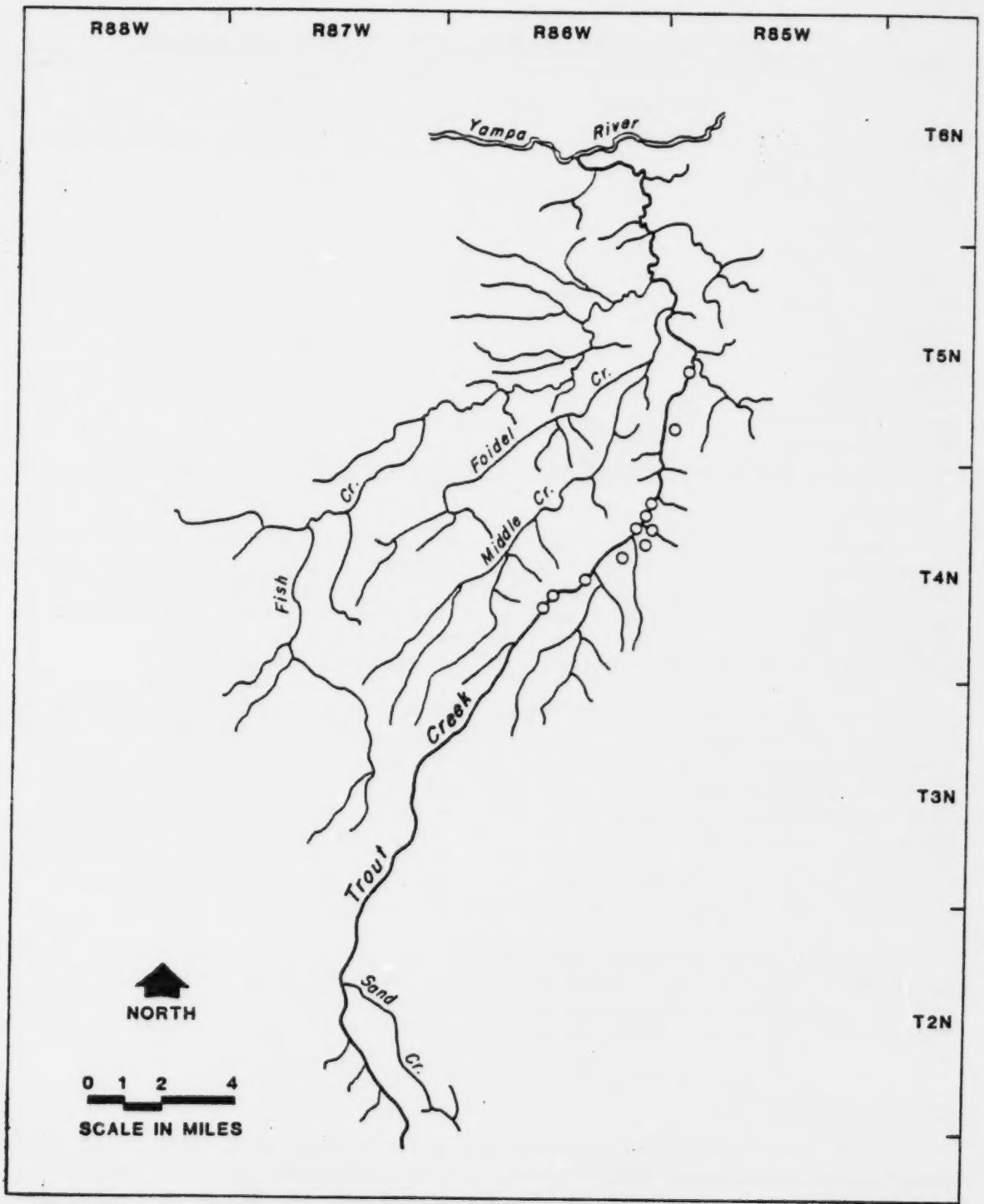


FIGURE 41. CANTON AND WARD AQUATIC LIFE SAMPLING STATIONS WITHIN THE TROUT CREEK BASIN.

TABLE 26. FISH REPORTED FROM THE TROUT CREEK BASIN

Taxa	Literature Source: Energy Fuels 1979	Goettl and Edde 1980	Pittsburg and Midway 1980	CDOW Data Files
Mountain whitefish		X	X	
Brook trout	X	X	X	X
Brown trout		X	X	X
Cutthroat trout		X	X	X
Rainbow trout		X	X	X
Fathead minnow	X			
Speckled dace	X	X	X	
Redside shiner		X	X	
Creek chub		X	X	
White sucker	X	X	X	
Mountain sucker	X	X	X	
Mottled sculpin	X	X	X	X

The Pittsburg and Midway Coal Company sampled periphyton, aquatic macroinvertebrates, and fish at four sites (Figure 40) along Trout Creek during 1979 and 1980 (Pittsburg and Midway 1980). They reported the collection of 71 macroinvertebrate taxa, but a taxa list was not included. Major taxonomic divisions discussed in the text are included in Table 25. A total of 11 fish species was reported from the four sampling sites (Table 26).

In a report on the differences between macroinvertebrate populations utilizing artificial versus natural substrates, Canton and Chadwick (1983) used information from Trout Creek collections made during 1980 and 1981. Detailed descriptions of the four stations or a macroinvertebrate taxa list were not provided. The taxa which were mentioned in the text are included in Table 25. Canton and Chadwick concluded that the fauna which colonized the multiplate artificial substrates were significantly different from those collected from the natural substrates. They cautioned the users of multiplate substrates when making population estimates in Rocky Mountain streams.

The CDOW has conducted fish surveys in several portions of the Trout Creek basin (Figure 40). While six species were recorded (Table 26) several species were grouped into suckers and minnows which could not be differentiated from the data. Trout Creek fish distribution is presented on Figure 42.

Aquatic Habitat

Trout Creek and its tributaries are small streams with clear, cold headwater areas and warmer, silted lower reaches. Many of the minor tributaries are intermittent, especially in the lower portions of the basin. The upper portion of the basin is heavily vegetated with aspen and conifers. The lower portion of the basin is dominated by farmlands and open shrub/sage range.

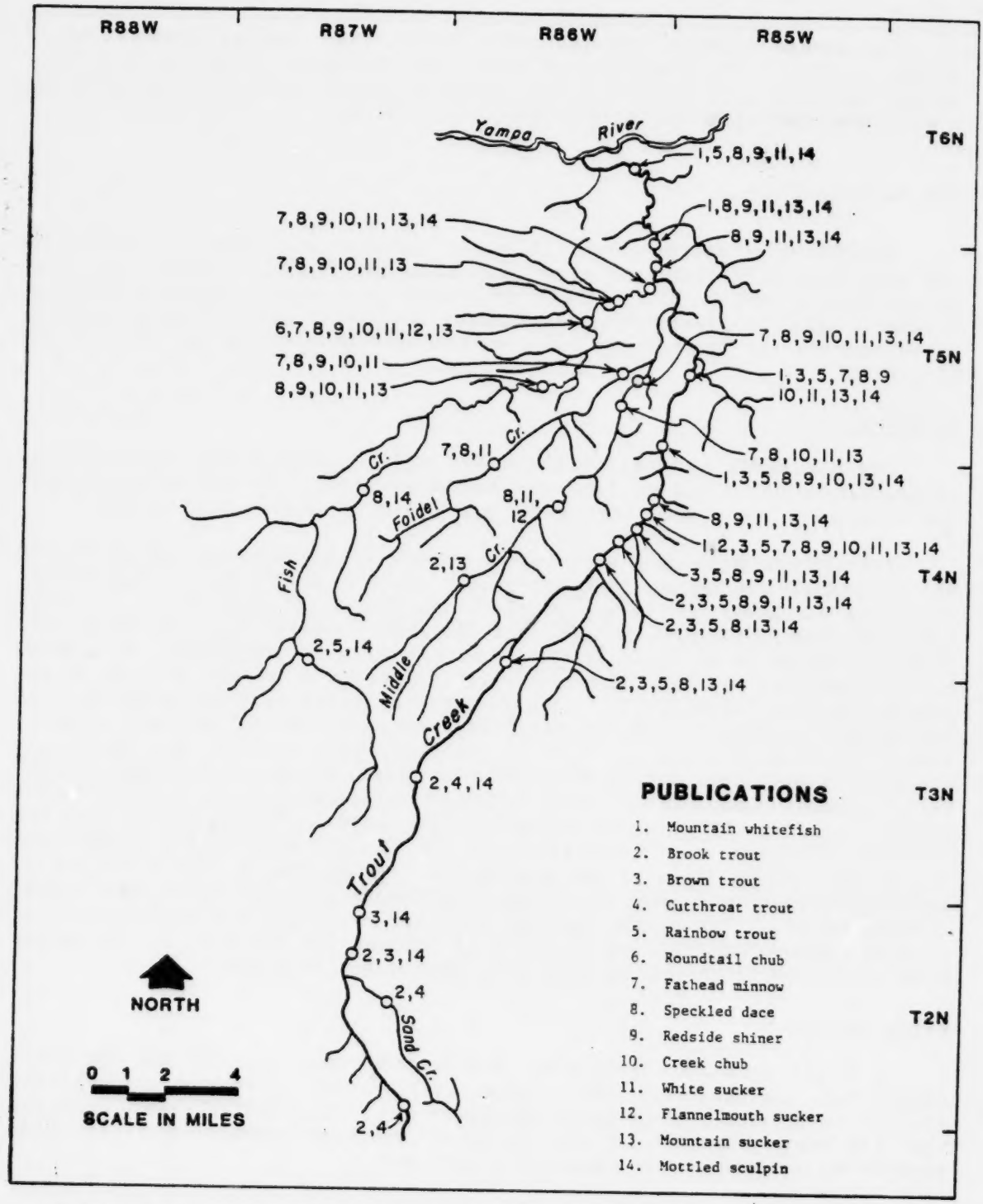


FIGURE 42. FISH DISTRIBUTION WITHIN THE TROUT CREEK BASIN.

The stream substrate is primarily rubble with smaller proportions of gravel and sand. The proportion of sand, and then silt, increases in a downstream direction to a final condition where the lower portion of the basin has a silt substrate with only occasional gravel riffles.

ELK RIVER BASIN

The Elk River drains about 415 square miles in a southerly direction to its confluence with the Yampa River near Steamboat Springs (Figure 43). Much of the eastern portion of the basin originates in the Mount Zirkel Wilderness. Steamboat Lake, in the northwest portion of the basin, is the largest standing water body in the Yampa River basin with a storage capacity of about 23,000 acre feet.

Hydrology

The Elk River is a major tributary to the upper Yampa River basin. Approximately 690 acres of land are irrigated within the Elk River Valley. Two reservoirs are located within the basin (Pearl and Steamboat Lakes).

Four stream gages have recorded streamflow in the Elk River basin (Figure 44) (Elk River at Hinman Park, Colorado; South Fork Elk River near Craig, Colorado; Elk River at Clark, Colorado; and Elk River near Trull, Colorado (Nos. 09240500, 09240800, 0924100, and 09242500, respectively), although only Station 0924100 is of these stations are currently in operation. Streamflow on the Elk River has been perennial over the period of record at each of the gaging stations (Appendix B). The downstream gaging stations experience an increased streamflow period beginning in March, whereas the upstream snowmelt runoff is delayed until April. In addition, peak flow at the downstream stations is sustained during the months of April and May as a result of the early snowmelt runoff in the lower basin (April peak) and the delayed runoff from the upper basin at higher elevations (May peak). Peak discharge from the upstream drainages of the Elk River occurs in June with rather symmetrical rising and falling limbs of the hydrograph. Streamflow in the Elk River is sustained from ground water discharge (baseflow) during the period from August through January. The slight increase in baseflow during September/October at station numbers 09242500 and 09240500 is probably in response to the excess water available to streamflow following the irrigation season.

Water Quality

A single location (Station No. 000154) near the mouth of the Elk River (Figure 44) has long-term recent water quality data available, although the station is presently inoperative (Appendix D). The available data indicate that the values reported for the Elk River are consistently lower than comparable values from nearby Yampa River stations.

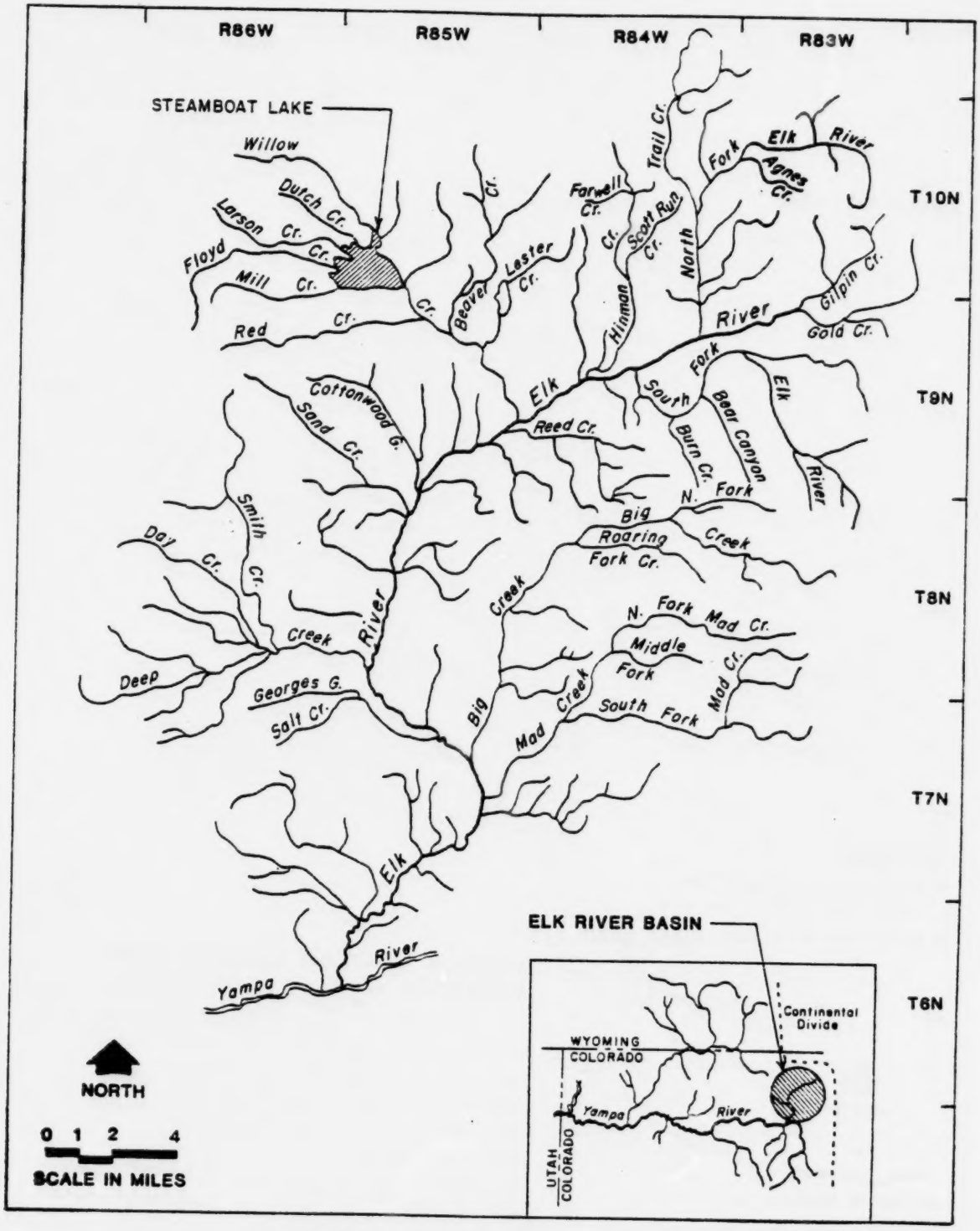


FIGURE 43. ELK RIVER BASIN.

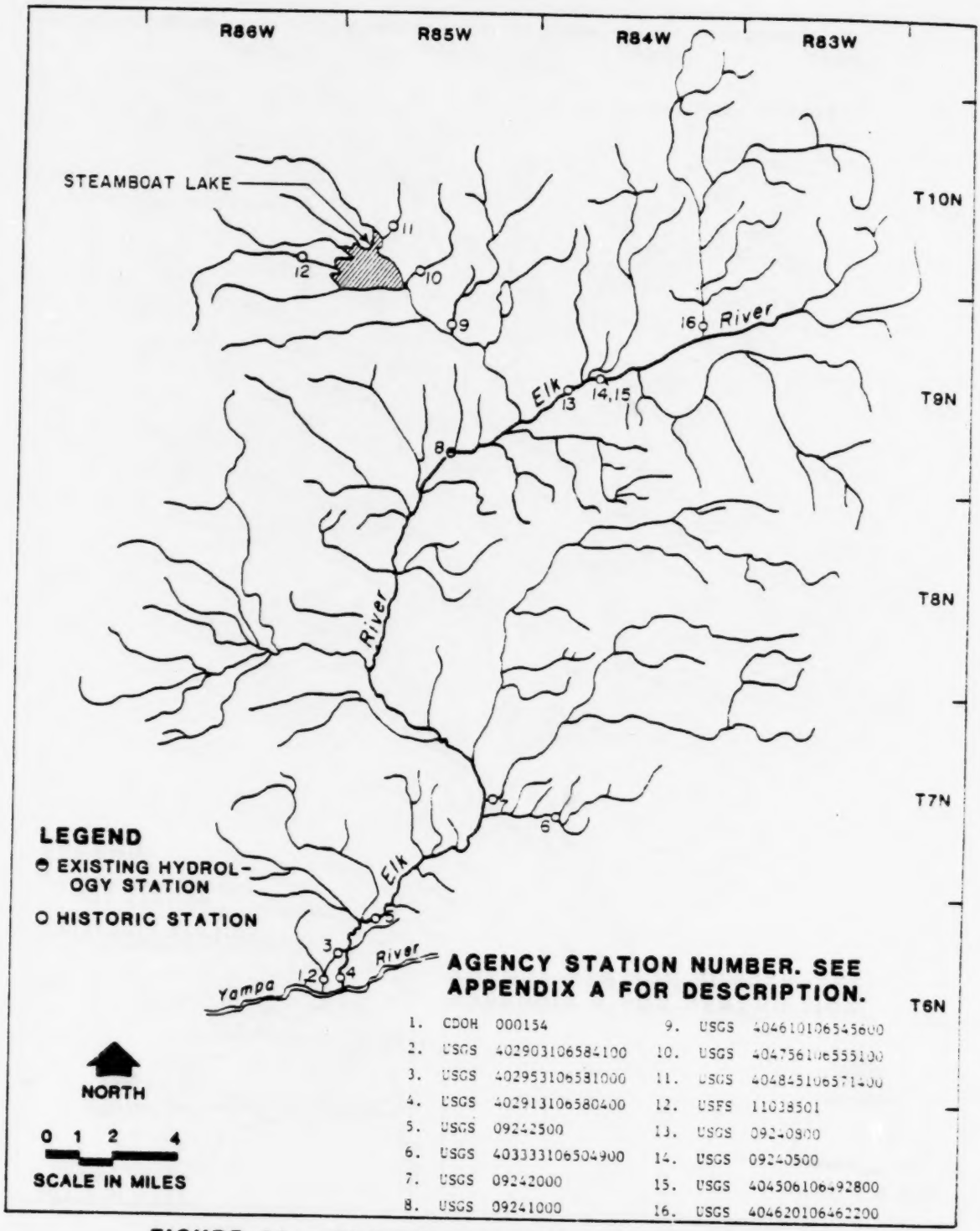


FIGURE 44. ELK RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

The CDOH has divided the Elk River basin into numerous segments (Figure 45) but only two use classifications. This reflects the general high quality of the existing water quality throughout the Elk River basin.

Andrews (1978) reported that the Elk River contributed nearly 30 percent of the discharge of the Yampa River basin but less than 2 percent of the total sediment yield.

Britton and Wentz (1980) listed water quality data from a single sampling at Steamboat Lake in the Willow Creek basin of the Elk River. The samples were collected 25 September 1973 and indicated that Steamboat Lake was relatively turbid (secchi depth, 5 feet) with anaerobic conditions occurring below depths of about 35 feet.

Aquatic Life

The available aquatic life studies for the Elk River basin are listed in Table 27. Oblad (1969) reported 31 stonefly species from the Elk River basin (Table 28). This number of species reflects the high level of effort placed in this area (Figure 46) when compared to other areas of the Yampa River basin.

TABLE 27. AQUATIC LIFE STUDIES WITHIN THE ELK RIVER BASIN

Periphyton	Macroinvertebrates	Fish	Literature Source
	X		Oblad 1969
	X		Wentz 1974
		X	Bohanen et al. 1981
	X		Wu et al. 1982
		X	CDOW Data Files

Wentz (1974) provided limited macroinvertebrate collection information for seven localities (Figure 46) within the Elk River basin. The data were presented by major taxonomic group (Table 28), with only five groups reported.

The CDOW has conducted special Colorado cutthroat trout surveys in northwestern Colorado since 1979 (Bohanen et al. 1981). Five localities have been sampled in the Elk River basin. All cutthroat trout populations examined during these studies were considered to be hybrid populations, most likely mixtures with the Yellowstone cutthroat subspecies.

Wu et al. (1982) reported 2 snails and 1 clam (Table 28) from the Elk River basin. Only two sampling localities were noted (Figure 46).

The CDOW has surveyed the fish populations of many Elk River tributaries (Figure 47) during general census studies (CDOW 1984). A total of eight fish

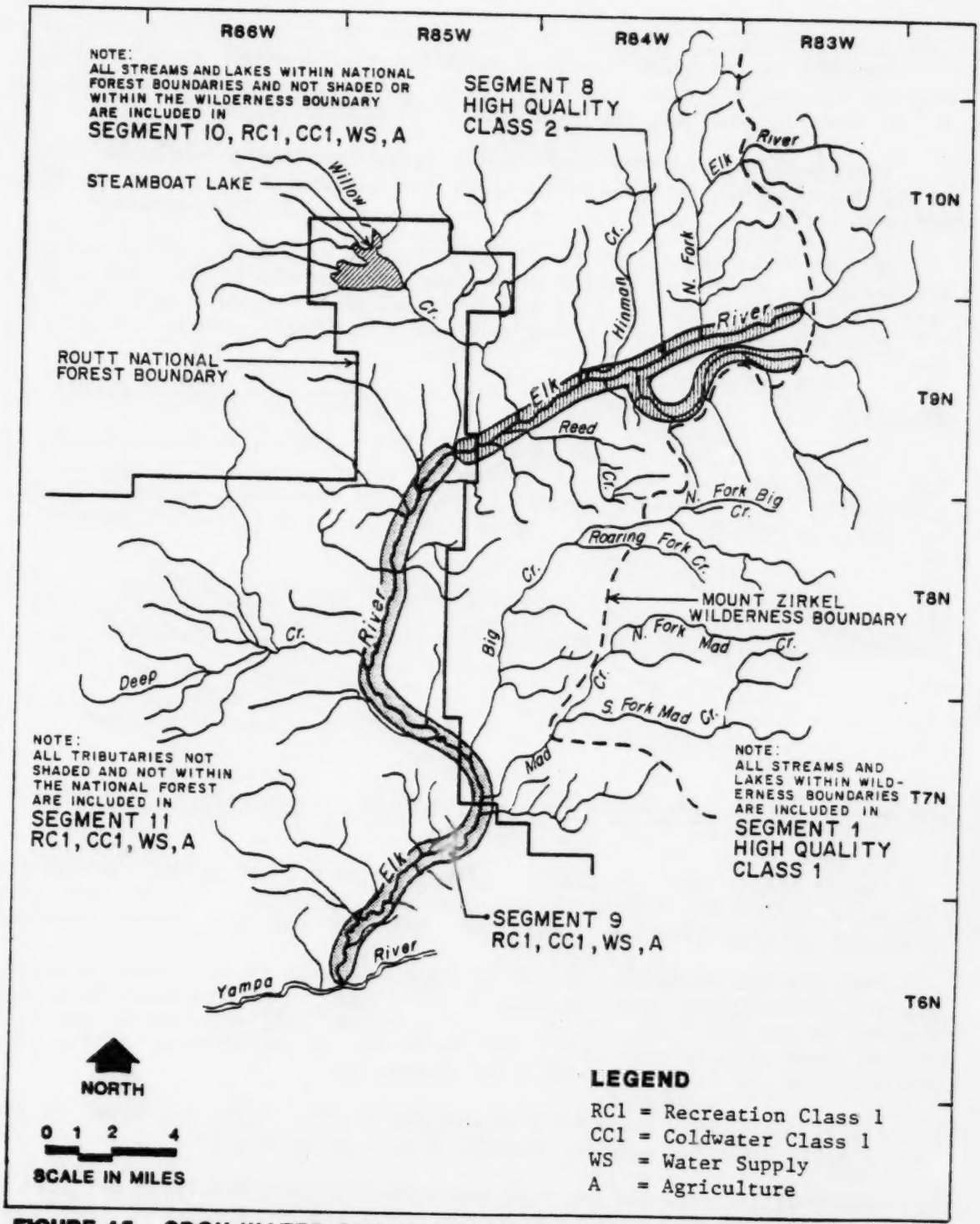


FIGURE 45. CDOH WATER QUALITY CONTROL COMMISSION STREAM SEGMENTATION AND CLASSIFICATIONS WITHIN THE ELK RIVER BASIN.

TABLE 28. AQUATIC MACROINVERTEBRATES REPORTED FROM THE ELK RIVER BASIN

Taxa	Literature Source: Oblad 1969	Wentz 1974	Wu et al. 1982
Plecoptera		X	
Capniidae			
Capnia coloradensis	X		
Capnia confusa	X		
Capnia gracilaria	X		
Capnia limata	X		
Eucapnopsis brevicauda	X		
Paracapnia angulata	X		
Utacapnia lemoniana	X		
Utacapnia poda	X		
Chloroperlidae			
Alloperla severa	X		
Paraperla frontalis	X		
Suwallia lineosa	X		
Suwallia pallidula	X		
Sweltsa coloradensis	X		
Sweltsa lamba	X		
Triznaka pintada	X		
Triznaka signata	X		
Leuctridae			
Paraleuctra sara	X		
Nemouridae			
Amphinemura venusta	X		
Podmosta delicatula	X		
Prostoia besametsa	X		
Zapada cinctipes	X		
Perlidae			
Claassenia sabulosa	X		
Hesperoperla pacifica	X		
Perlodidae			
Arcynopteryx parallela	X		
Cultus aestivalis	X		
Diura knowltoni	X		
Isoperla fulva	X		
Kogotus modestus	X		
Pteronarcidae			
Pteronarcella badia	X		
Pteronarcys californica	X		
Taeniopterygidae			
Taenionema nigripennis	X		
Ephemeroptera		X	
Trichoptera		X	
Diptera			
Simuliidae		X	

(continued)

TABLE 28. (continued)

Taxa	Literature Source		
	Oblad 1969	Wentz 1974	Wu et al. 1982
Gastropoda			
Lymnaeidae		X	
Lymnaea modicella			X
Physidae			
Physa gyrina			X
Pelecypoda			
Sphaeriidae			
Pisidium nitidum			X
Total number of taxa reported	31	5	3

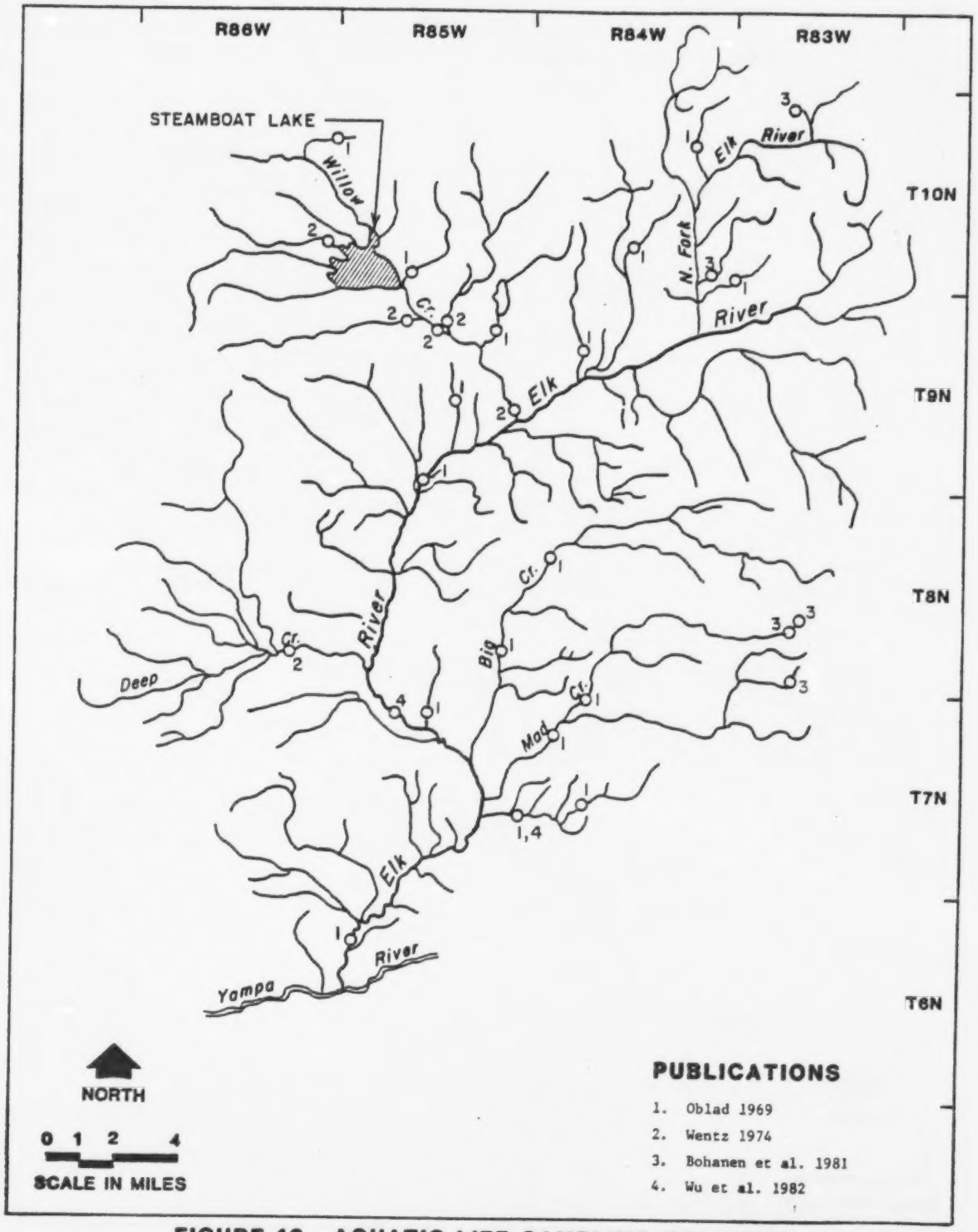


FIGURE 46. AQUATIC LIFE SAMPLING STATIONS WITHIN THE ELK RIVER BASIN.

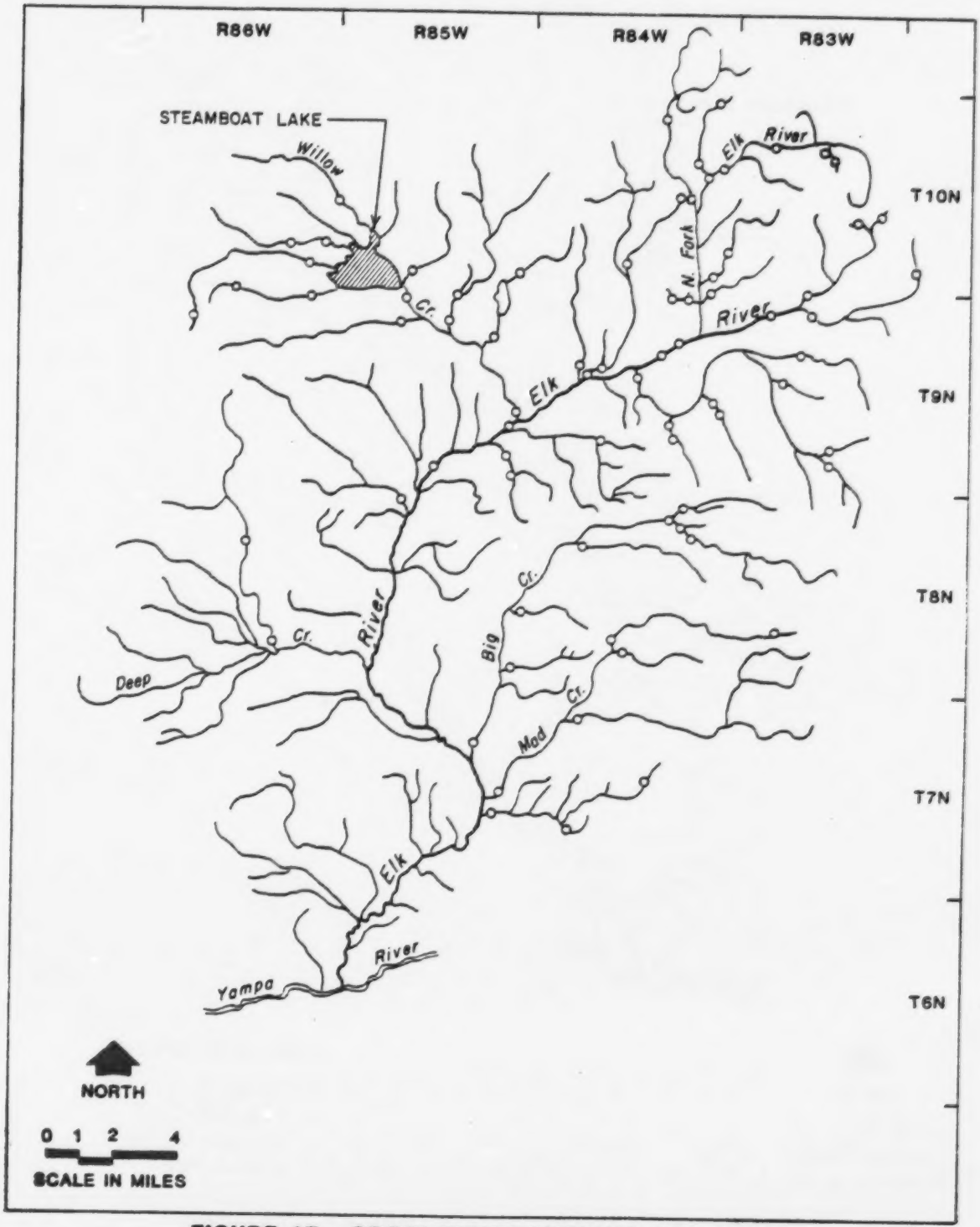


FIGURE 47. CDOW FISH SAMPLING STATIONS WITHIN THE ELK RIVER BASIN.

species has been reported (Table 29). This total is probably low because several surveys listed unidentified minnows and suckers. The distribution of these unidentified specimens has not been included in Figure 48.

Aquatic Habitat

The headwaters of the Elk River include high altitude lakes and streams along the Continental Divide in eastern Routt County. While no habitat analyses are available for Elk River, the low sediment discharge levels (see Water Quality discussion) indicate that the Elk River probably consists of rubble/gravel substrates throughout the basin.

Steamboat Lake has a maximum depth of about 75 feet and is the largest standing water habitat in the Yampa basin.

TABLE 29. FISH REPORTED FROM THE ELK RIVER BASIN

Taxa	Bohanen et al. 1981	CDOW Data Files
Mountain whitefish		X
Brook trout	X	X
Brown trout	X	X
Cutthroat trout	X	X
Rainbow trout	X	X
Speckled dace		X
White sucker	X	
Mountain sucker	X	X
Mottled sculpin		X

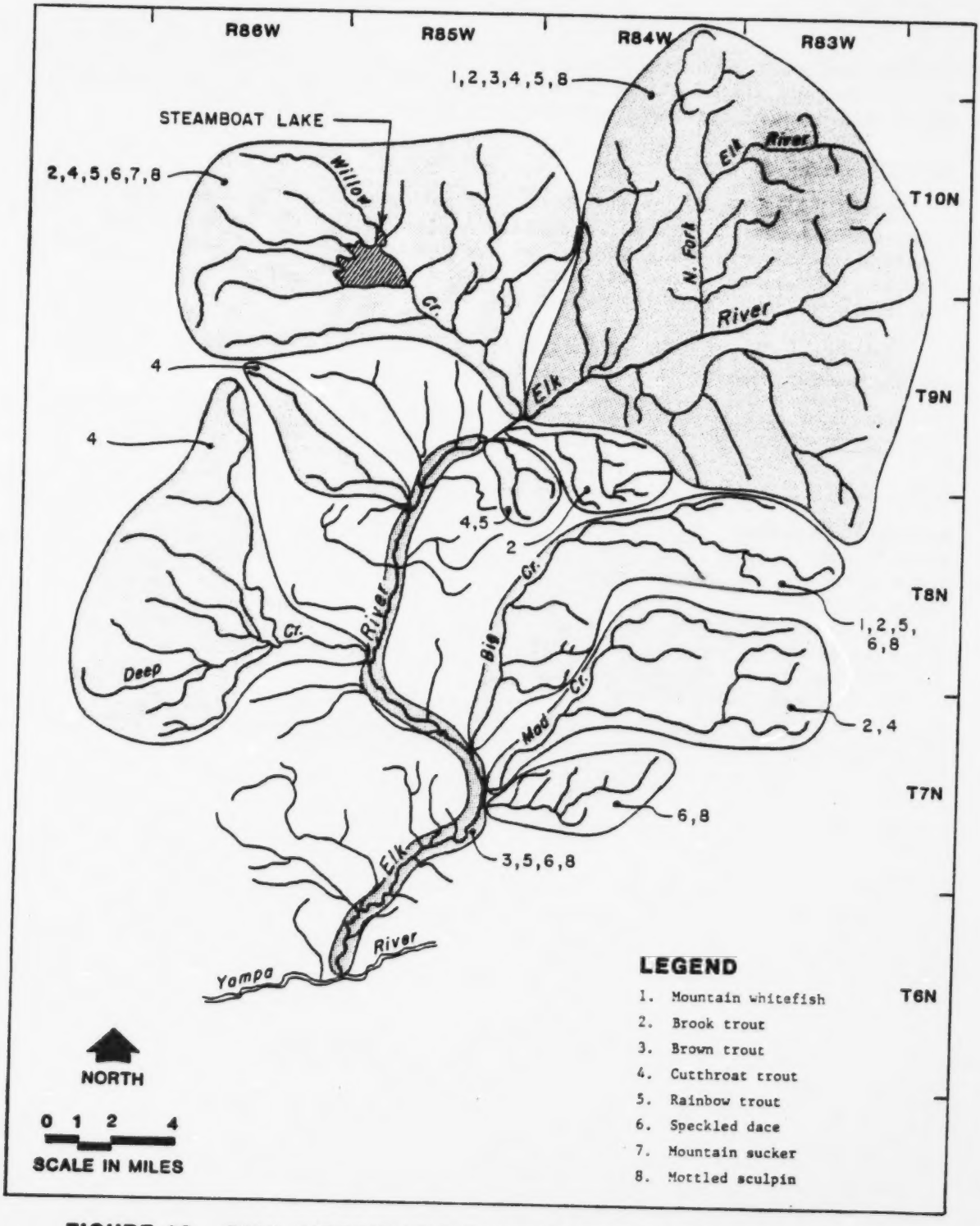


FIGURE 48. FISH DISTRIBUTION WITHIN THE ELK RIVER BASIN.

DATA DEFICIENCIES

The existing surface water hydrology, water quality, and aquatic life data within the Yampa River basin should be considered limited. While some areas have extensive data for a single discipline, no one discipline is consistently represented throughout the basin. As part of this report, brief recommendations of the studies necessary to update the existing data base to a level which would allow adequate comparisons between the aquatic systems within the Yampa River basin have been made. These recommendations are general in nature. It is not possible to recommend exact study methods without knowledge of the purpose of the study. It is also assumed that existing long-term standardized sampling programs will continue. The stream discharge and water quality programs of the USGS have provided the majority of the available data within these disciplines for the regions. Discontinuance, or reduction, of these programs would impact the available data base within the region.

The most complete set of data available for the White River is for the Trout Creek basin. Therefore, the recommendations are based upon improving the data base to a point where all basins are on a comparable level with Trout Creek. The studies that would be necessary to update the existing data base are outlined in Table 30.

TABLE 30. RECOMMENDATIONS FOR SURFACE WATER HYDROLOGY, WATER QUALITY, AND AQUATIC LIFE SAMPLING PROGRAMS NECESSARY TO UPDATE THE EXISTING DATA BASE

	Hydrology	Water Quality	Periphyton	Macroinvertebrates	Fish
Lower Yampa River		X	X	X	
Little Snake River		X	X	X	X
Milk Creek	X	X	X	X	X
Williams Fork River	X	X	X	X	X
Fortification Creek	X	X	X	X	X
Upper Yampa River		X	X		X
Trout Creek					
Elk River	X		X	X	X

REFERENCE STREAM RECOMMENDATIONS

The need for reference sites is based on the premise that identification of a disturbance within an ecological system depends on the comparison of the disturbed area with an undisturbed, or reference, area. Within aquatic ecosystems, the most commonly established reference sites are upstream and downstream from a disturbance source. However, when a disturbance area is large, or several different types of disturbances occur, reference sites are difficult to establish. In order to overcome the probleem of identifying reference sites for large or diffuse disturbances, Hughes and Omernik (1983) suggested that the establishment of several well selected reference sites within a large, homogenous, ecological area could provide the necessary undisturbed control sites for the entire area. The concept of "undisturbed" should be further defined as "undisturbed by the disturbance to be measured." A stream need not be pristine prior to an oil spill for the effects of the oil spill to be measured. The stream only needs to be free of oil-related disturbance.

Aquatic habitat types within the Yampa River basin include ephemeral, intermittent, and perennial springs, seeps, and streams. The large rivers within the region are perennial in nature. The largest perennial tributary basin in the region, by basin area, is the Little Snake River. The largest perennial basin, as measured by discharge, is the Elk River. This is somewhat misleading, however, in that the majority of Elk River discharge results from irrigation return flows.

A detailed discussion of reference site selection is included in EPA (1983). Reference sites should be located in areas:

(1) Where there is a narrower range of land use or disturbance potentials compared to the entire region or other regions. Hence, there should be a narrower range of aquatic ecosystem conditions in these most-typical areas compared to the entire region or other regions.

(2) That are free of major anomalies that might produce undisturbed sites that are also atypical, such as an entirely forested, mountainous watershed in a region typified by shrublands and plains.

(3) That can potentially represent the greatest number of streams in the ecological region because they drain watersheds having all the predominant classes of environmental characteristics that were used to identify the region.

(4) That best represent the prevailing land use of the ecological region and the best background conditions likely. For example, there is little likelihood of transforming an area dominated by rangeland into forestland, therefore, the predominant land use in the watershed of a reference reach in such an area should be grazing.

In refining the reference site selection, the following factors should be considered:

(1) Human disturbances. Watersheds that contain dense human populations, concentrations of mines or industry, several or important point sources, or major and atypical problems with diffuse pollution (e.g., acidification, soil erosion, overgrazing, mine wastes, landslides) should be eliminated from consideration as reference watersheds. Intentional stocking of sport fishes and incidental releases of aquarium and bait organisms have extended the ranges of many aquatic species. If these introductions are only local, knowledge of such populations should be considered when selecting least-disturbed watersheds because introduced stocks of species are some of the most detrimental changes that humans initiate in aquatic ecosystems.

(2) Size. Because of the gradual change in many stream characteristics from headwaters to rivers, it is important to consider the size of the reference reaches when they are to be compared with a priority water body. Although stream order has often been used by biologists to approximate stream size, Hughes and Omernik (1983) give several reasons why watershed area and mean annual discharge are preferable measures. Although regional differences make any generalizations difficult, the stream order of priority and reference reaches should not differ by more than one order in most cases and the watershed areas usually should differ by less than one order of magnitude. Separation of streams by the discharge per unit area is another means of isolating streams of similar water yield characteristics.

(3) Surface water hydrology. While determining size, the researcher should examine the types of watersheds, streams, or lakes for anomalies. Large scale topographic maps will usually reveal whether the streams are effluent or influent (i.e., whether the net movement of water is from the streams to the groundwater or the reverse). The same maps reveal drainage lakes, lake type (kettle, solution, oxbow) amount of ditching or channelization, and drainage pattern (dendritic, trellis, aimless).

(4) Water chemistry. These data can be used to estimate background or typical conditions.

Based on the above definitions and descriptions, it is apparent that no one stream segment within the Yampa River basin has the potential for providing a reference site for the basin. However, a group of stream segments could be selected which would provide a good reference base to judge future potential impacts on the region.

There are four basic aquatic habitat types within the basin. They include springs and seeps, streams, rivers, ponds and lakes, and reservoirs. Most ponds are man-made for irrigation and stock watering purposes. Both natural and man-made lakes occur. The aquatic habitats can be further divided

into perennial and intermittent habitats. Many of the smaller streams in the western part of the region are intermittent. All of the above factors should be considered in the selection of reference sites.

While exact reference sites should not be selected without an on-site inspection, recommendations can be made based on the available data:

1. At a minimum, reference sites should be established within the following habitat types:

   - Perennial spring/good water quality,
   - Perennial spring/poor water quality,
   - Perennial first order stream,
   - Intermittent first order stream,
   - Stream which maintains a reproducing salmonid population,
   - Stream which maintains a reproducing nonsalmonid population,
   - Upper Yampa River,
   - Lower Yampa River,
   - Stock pond with fish,
   - Stock pond without fish,
   - High mountain natural lake,
   - High mountain man-made lake,
   - Warmwater reservoir,
   - Cold water reservoir.

2. Reference site selection should be based on the anticipated disturbance to be monitored. The total number and locations of sites would be different for monitoring impacts of coal development than for nonindustry-related water development.

The available Yampa River data base is not sufficient to determine suitable reference streams for the basin. The data necessary to make between basin comparisons, especially aquatic life and hydrology data, is lacking. However, several general recommendations can be made. It is likely that the small streams and lakes of the high altitude regions, upstream from irrigation diversions, are similar enough in habitat types and availability that stream segments could be selected for reference segments. The larger cold water streams, such as Elk River, the upper Yampa River and the upper Little Snake River are probably not directly comparable due to variations in existing water quality. Finally, the warm water stream reaches of the lower Yampa River and lower Little Snake River are sufficiently different in size that direct comparisons should not be made.

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APPENDIX A
HYDROLOGY, WATER QUALITY AND AQUATIC LIFE SAMPLING LOCALITIES IN THE YAMPA RIVER BASIN OF WESTERN COLORADO AND SOUTHERN WYOMING

Appendix A contains a list of the locations where hydrology, water quality and aquatic life data have been collected in the Yampa River Basin. The list is arranged in an upstream direction from the confluence of the Yampa and Green Rivers.

Column 1 contains the river mile of the location measured upstream from the mouth of the stream. Several sources were used to obtain river mileage figures. The USGS publishes river mileage for many of its gages. The EPA, under its MAPS program of stream station listing has developed river mileage for many of the water quality stations and the mouths of many of the tributary streams. Some of this information is included in STORET. Finally, USFWS personnel have developed a system of river miles for the major streams that they have sampled. Measurements were made from USGS 7.5 minute topological maps. The data generated by these three agencies varies. The data included in Appendix A are from all three systems. It was thought to be better to present the three current systems than to redo the calculations and introduce a fourth system.

Column 2 contains a citation for the source document which initiated the station. Stations which are maintained by governmental agencies, such as USGS gaging stations, are cited with an abbreviated agency code. Descriptions of the agency codes are found in the footnotes of Appendix A. The biological sampling stations which were established by the authors of the sampling programs are listed by the abbreviated author citation. The full author citations are found in the Bibliography.

Column 3 contains the station number, when available, as listed by the data source.

Column 4 contains the station name, when available, as listed by the data source.

Column 5 contains the latitude and longitude of the sampling station. When these values were provided by the data source they were listed as presented.

Column 6 contains the abbreviation for the state in which the sampling station is located. A description of the state abbreviations is found in the footnotes of Appendix A.

Column 7 contains the abbreviation for the county in which the sampling station is located. A description of the county abbreviations is found in the footnotes of Appendix A.

Column 8 contains the township of the sampling station. When the township was provided by the data source, it was listed as presented. When the

township was not provided, and the station could be accurately located on USGS topographical sheets, the township was recorded.

Column 9 contains the range of the sampling station. When the range was provided by the data source, it was listed as presented. When the range was not provided, and the station could be accurately located on USGS topographical sheets, the range was recorded.

Column 10 contains the section of the sampling station. When the section was provided by the data source, it was listed as presented. When the section was not provided, and the station could be accurately located on USGS topographical sheets, the section was recorded.

Column 11 contains the altitude, in feet, of the sampling station. When the altitude was provided by the data source, it was listed as presented. If the altitude was cited in meters it was converted to feet. When the altitude was not provided, and station could be accurately located on USGS topographical sheets, the altitude was reported to the nearest 10 feet.

Column 12 contains the drainage area, in square miles, of the basin upstream from the sampling station. These values were obtained primarily from USGS records. If other sources provided drainage area estimates, they are included.

Column 13 contains the surface water hydrology data period of record for the sampling station. If the gage was still operating as of 1 January, 1984, the end date was left blank. Gages which have discontinuous periods of records because of nonmaintenance of the gage are noted by the symbol I.

Column 14 contains the surface water quality sampling period of record for the sampling station.

Column 15 contains the aquatic life sampling period of record for the sampling station. As aquatic life sampling was seldom conducted on a standardized time frame, the year, or years, sampling was conducted is listed.

Column 16 contains a listing of the computerized data bases which were used to obtain the sampling locations and periods of record. As there were often variations between the information provided by the various databases about the same sampling locality, the database source is included for the use of future researchers.

APPENDIX A

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
			YAMPA RIVER BASIN												
	USGS	403144108584900	Yampa River near Jensen	403144/ 1085849	CO	MF	7N	103W	28	5,100			1947-1948		ST
	CDOW		Yampa River		CO	MF	6N	103W							
	USGS	403146108584900	Yampa River above river mile 0 in Dinosaur Nat. Monument	403146/ 1085849	CO	MF	7N	103W	28	5,100			1976	1980	O ST
	Banks 1964		Echo Park		CO	MF	7N	103W	28	5,010					
	McAda 1977	3	Echo Park		CO	MF	6N	103W						1961-1962	
	Banks 1964		Castle Park		CO	MF	6N	102W	18	5,150				1974-1976	O
	Woodbury et al. 1963		Yampa River-Seep Pool-Dinosaur National Monument		CO	MF	6N	103W	28					1961-1962	O
	Woodbury et al. 1963		Yampa River-Echo Park-Dinosaur National Monument		CO	MF	6N	103W	28					1963	O
	USGS	09260150	Yampa River below Box Elder Park near Dinosaur	403108/ 1085738	CO	MF	7N	103W		5,110			1982	1963	O ST
2.3	Annear 1980	Y-4	Yampa River, river mile 2.3		CO	MF	7N	103W							
	McAda 1977	2	Castle Park		CO	MF	6N	102W						1977-1978	O
	Hagen 1962	4	Mantle Ranch (Yampa)		CO	MF	6N	102W						1974-1976	O
	Hughes 1981		Yampa River near Red Rock Creek	SDI	CO	MF								1962	O
15	USGS	402910108515300	Yampa River at river mile 15 in Dinosaur Nat. Monument	402910/ 1085153	CO	MF	6N	102W	9	5,160			1976	1975	O ST
16.5	ERI 1981		Yampa River, river mile 16.5		CO	MF	6N	102W	9	5,150					
18.0	ERI 1981		Yampa River, river mile 18.0		CO	MF	6N	102W	16	5,180				1981	O
20.3	Annear 1980	Y-3	Yampa River, river mile 20.3		CO	MF	6N	102W	12					1981	O
	CDOW		Yampa River		CO	MF	6N	102W						1977-1978	O
26	USGS	403009108464200	Yampa River at river mile 26 in Dinosaur Nat. Monument	403009/ 1084642	CO	MF	6N	101W	6	5,260			1976	1982	O ST
36	USGS	402811108384500	Yampa River at river mile 36 in Dinosaur Nat. Monument	402811/ 1083845	CO	MF	6N	100W	16	5,460			1976		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
37.6	Annear 1980	Y-2	Yampa River, River Mile 37.6		CO	MF	6N	100W							O
46	USGS	09260050	Yampa River at Deer Lodge Park	402702/ 1083120	CO	MF	6N	99W	21	5,590				1977-1978	
	Woodbury et al. 1963		Yampa River-Deer Lodge-Dinosaur National Monument		CO	MF	6N	99W	21	5,590			1975-1982		ST
	CDOW		Yampa River		CO	MF	6N	99W	24					1963	O
48	CDOH	000040	Yampa River below Little Snake River	402600/ 1083000	CO	MF	6N	99W	25	5,610			1968-	1980	O ST
			LITTLE SNAKE RIVER BASIN												
10	USGS	09260000	Little Snake River near Lily	403250/ 1082525	CO	MF	7N	98W	20	5,685	3,730	1904-I	1950-		W/ST
	CDOW	22858	Little Snake River No. 3 5 miles west of Baggs		CO	MF	6N	98W	19	5,640				1976	O
10	USGS	000041	Little Snake River above Lily	403250/ 1082525	CO	MF	7N	98W	20	5,685	3,730		1968-		ST
	USGS	09259950	Little Snake River above Lily	403627/ 1082011	CO	MF	8N	97W	31	5,730		1950-1969	1979 1950-		W/ST
	USGS	09259700	Little Snake River near Baggs	410011/ 1075511	WY	SW	12N	94W	18		3,020	1961-1968	1970 1969-		W/ST
	USGS	405937107462500	Little Snake River above Thornburgh Gulch near Baggs	405937/ 1074625	CO	MF	12N	93W	13	6,120			1980 1975		ST
	CDOW	21173	Fourmile Creek at Confluence with County Road 101		CO	MF	12N	92W	14	6,240				1980	O
	USGS	405903107375900	Fourmile Creek at bridge on State Highway	405903/ 1073759	CO	MF	12N	91W	20	6,315			1958		ST
	USGS	09259500	Fourmile Creek near Baggs	405026/ 1073052	CO	MF	10N	90W	8	7,200		1911-1923	1957		ST
	CDOW	21173	Fourmile Creek 1.4 miles below confluence with County Road 109		CO	MF	10N	89W	19	9,600				1980	O
	WGFD		Little Snake River Section 1		WY	CA	12N	92W	14						O
	WGFD		Muddy Creek		WY	CA	12N	91W	5						O
	WGFD		Muddy Creek		WY	CA	18N	88W	31						O
	WGFD		Littlefield Creek		WY	CA	17N	89W	18						O
	WGFD		East Fork Muddy Creek		WY	CA	17N	89W	20						O
	CDOW	22854	Little Snake River Section 2		WY	CA	12N	90W	8						O
			Willow Creek two miles above confluence with Wyoming border		CO	MF	12N	90W	7					1980	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
8.0	USGS	09258000	Willow Creek near Dixon	405456/ 1073116	CO	MF	11N	90W	8/17	6,700	24	1953	1958-1975		W
	Wentz 1974	8117	Willow Creek near Dixon	405456/ 1073116	CO	MF	11N	90W						1972	0
	CDOW	22854	Willow Creek on private land at confluence with County Road 38		CO	MF	10N	89W	20					1980	0
	USGS	09257000	Little Snake River near Dixon	410142/ 1073255	WY	CA	12N	90W	8	6,331	988	1910[I]	1979-1980		W
	USGS	09256500	Savery Creek at Savery	SDI	WY	CA									W
	USGS	09256000	Savery Creek near Savery	SDI	WY	CA									W
	USGS	09255900	Big Sandstone Creek near Savery	SDI	WY	CA									W
	USGS	09255600	Savery Creek at upper station near Savery	SDI	WY	CA									W
	USGS	09255400	East Fork of Savery Creek near Encampment	SDI	WY	CA									W
	USGS	09255000	Slater Fork near Slater	405854/ 1072258	CO	MF	12N	89W	21	6,570		1910[I]	1958-1980		W
	USGS	09254500	Slater Fork at Baxter Ranch near Slater		CO	MF	12N	89W	21					1972	W
	Wentz 1974	838	Slater Fork near Slater		CO	MF	12N	89W						1972	0
	WGFD		Loco Creek		WY	CA	13N	89W	11						0
	WGFD		Little Sandstone Creek		WY	CA	13N	89W	2	6,800					0
	WGFD		Big Sandstone Creek		WY	CA	14N	87W	36						0
	WGFD		Deep Creek		WY	CA	14N	88W	24						0
	WGFD		Mill Creek		WY	CA	14N	87W	20						0
	WGFD		North Fork Big Sandstone Creek		WY	CA	14N	87W	11						0
	WGFD		Douglas Creek		WY	CA	14N	87W	10						0
	WGFD		Fulton Creek		WY	CA	15N	89W	14						0
	WGFD		Tiny Creek		WY	CA	15N	89W	13						0
	WGFD		North Fork Big Savery Creek		WY	CA	16N	88W	22						0
	WGFD		Evanoff Creek		WY	CA	16N	88W	22						0
	WGFD		Fish Creek		WY	CA	16N	87W	18						0
	WGFD		Mill Creek		WY	CA	16N	87W	20						0
	WGFD		East Branch Deep Creek		WY	CA	14N	87W	4					1958	0
	WGFD		West Branch Deep Creek		WY	CA	14N	87W	4					1958	0
	WGFD		Mill Creek		WY	CA	14N	87W	27					1958	0
	WGFD		Right Branch Mill Creek		WY	CA	14N	87W	13					1958	0
	WGFD		North Fork of South Fork Mill Creek		WY	CA	14N	87W	23					1958	0
	WGFD		Big Sandstone Creek		WY	CA	14N	87W	12					1958	0

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	WGFD		North Fork Big Sandstone Creek		WY	CA	14N	87W	12					1958	0
	WGFD		Unnamed Tributary to Big Sandstone Creek		WY	CA	14N	87W	11					1958	0
	WGFD		Douglas Creek		WY	CA	14N	87W	3					1958	0
	WGFD		Dirtyman Creek		WY	CA	15N	87W	29					1958	0
	WGFD		Dirtyman Creek		WY	CA	15N	88W	15						0
	WGFD		Hatch Creek		WY	CA	15N	88W	13						0
	WGFD		Hatch Creek		WY	CA	15N	88W	13						0
	WGFD		Hartt Creek		WY	CA	15N	87W	6					1958	0
	WGFD		North Fork of South Fork Hartt Creek		WY	CA	15N	87W	6					1958	0
	WGFD		South Fork Hartt Creek		WY	CA	15N	87W	5					1958	0
	WGFD		Hom's Creek		WY	CA	15N	87W	8					1958	0
	WGFD		Hatch Creek		WY	CA	15N	87W	8					1958	0
	WGFD		Latigo Creek		WY	CA	15N	87W	17					1958	0
	WGFD		Bear Creek		WY	CA	15N	87W	16					1958	0
	WGFD		East Fork Savery Creek		WY	CA	15N	87W	16					1958	0
	WGFD		Mexican Creek		WY	CA	15N	87W	16					1958	0
	WGFD		South Fork Deep Gulch		WY	CA	16N	87W	31					1958	0
	WGFD		Cabin Creek		WY	CA	16N	87W	31					1958	0
	WGFD		Deep Gulch		WY	CA	16N	87W	30					1958	0
	WGFD		North Fork Savery Creek		WY	CA	16N	87W	20					1958	0
	WGFD		Fish Creek		WY	CA	16N	87W	18					1958	0
	WGFD		Mexican Creek		WY	CA	15N	87W	15						0
	WGFD		Strawberry Creek		WY	CA	15N	87W	15	8,200					0
	WGFD		Strawberry Gulch Creek		WY	CA	15N	87W	15						0
	WGFD		Beaver Creek		WY	CA	15N	87W	14						0
	CDOW	22959	Cataract Creek - ponds one mile above USFS boundary		CO	MF	11N	89W	24					1981	0
	CDOW	27032	Roaring Fork Creek - one mile above confluence		CO	MF	11N	89W	25					1981	0
	CDOW	23286	South Fork Slater Creek 1/4 mile above W. Prong Creek confluence		CO	MF	10N	88W	5					1980	0
	CDOW	21123	West Prong Creek - 100 yards above confluence with USFS Road 133		CO	MF	10N	88W	17					1980	0
	CDOW	21953	Slater Creek - 1/4 mile above USFS boundary at Slater Park		CO	RT	10N	88W	5					1976	0
	Wentz 1974	840	Slater Fork above South Fork near Slater		CO	RT	10N	88W						1972	0
	Wentz 1974	839	South Fork Slater Fork near mouth near Slater		CO	RT	10N	88W						1972	0

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	21876	Sawtooth Creek-Meadow 1 mile above confluence-lower end of meadow		CO	RT	10N	88W	9	7,700				1981	O
	CDOW	21876	Sawtooth Creek-Meadow 1 mile above confluence-upper end of meadow		CO	RT	10N	88W	22	9,100				1981	O
	CDOW	20521	Grizzly Creek - 1/4 mile below the confluence with USFS Trail 1144		CO	RT	10N	88W	11					1980	O
	CDOW	20014	Douglas Creek - 100 feet below the confluence with USFS Trail 1144	SDI	CO	RT									O
	CDOW	25002	Crawford Creek - above Slater Creek Road		CO	RT	10N	87W	6					1976	O
	Klein 1957		Slater Creek about 1 mile above the junction with the Snake		CO	MF	12N	89W	21					1955	O
	CDOW	21953	Slater Creek-above private land at head of Slater Park		CO	RT	10N	87W	24					1976	O
	CDOW	21991	Little Snake River-1st bridge above Slater Creek		CO	MF	12N	89W	16	6,600				1976	O
	CDOW	21991	Little Snake River-Focus Ranch about 5 miles from upper terminus		CO	MF				7,000				1976	O
	USGS	09253500	Battle Creek near Slater	410012/ 1071415	WY	CA						1942-1951	1975-1978		ST
	WGFD		Fly Creek		WY	CA	12N	88W	16						O
	WGFD		Battle Creek		WY	CA	12N	88W	13						O
	WGFD		Lower Big Gulch Creek		WY	CA	12N	87W	6						O
	WGFD		Upper Big Gulch Creek	SDI	WY	CA									O
	USGS	09253400	Baby Lake Creek		WY	CA	13N	86W	8						O
	WGFD		Battle Creek near Encampment	SDI	WY	CA									O
	WGFD		Haskins Creek		WY	CA	14N	86W	27	8,920					W
	WGFD		West Branch Haskins Creek		WY	CA	14N	86W	22						O
	WGFD		East Branch Haskins Creek		WY	CA	14N	86W	22						O
	WGFD		Smith Creek		WY	CA	14N	86W	23	9,280					O
	WGFD		East Fork Smith Creek		WY	CA	14N	86W	26	9,160					O
	USGS	09253000	Doane Creek		WY	CA	14N	86W	25	9,240					O
	WGFD		Little Snake River near Slater	405958/ 1070834	CO	RT	12N	87W	15	6,831	285	1942-[I]	1957-		O
	WGFD		Lost Creek		WY	CA	13N	86W	6						W/ST
	WGFD		Bachelor Creek		WY	CA	14N	86W	19	9,080					O
	WGFD		Bachelor Creek		WY	CA	14N	86W	19						O
	WGFD		Bachelor Creek		WY	CA	14N	86W	17					1958	O
			West Fork Battle Creek		WY	CA	14N	86W	25						O
														1958	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	Klein 1957		Battle Creek, 5 miles below junction with Beaver Creek	SDI	CO	RT								1955	0
	WGFD		South Fork of West Fork Battle Creek		WY	CA	14N	86W	25					1958	0
	WGFD		West Fork Battle Creek		WY	CA	13N	87W							0
	WGFD		East Branch Haskins Creek		WY	CA	14N	86W	27						0
	WGFD		Haskins Creek		WY	CA	14N	86W	27					1958	0
	WGFD		Spring Creek		WY	CA	12N	86W	14					1958	0
	Wesche et al. 1977	1	Cottonwood Creek		WY	CA	12n	86W	18					1958	0
			Roaring Fork		WY	CA								1958	0
			Roaring Fork-at proposed diversion point		WY	CA	13N	86W	14	9,000				1958	0
	Wesche et al. 1977	2	Roaring Fork-2600 feet below site number 1		WY	CA	13N	86W						1976	0
	Wesche et al. 1977	3	Roaring Fork-1700 feet below site number 2		WY	CA	13N	86W	22					1976	0
	WGFD		Sherard Creek		WY	CA	13N	86W	15					1976	0
	WGFD		North Fork Little Snake River	SDI	WY	CA									0
			West Branch North Fork Little Snake River		WY	CA	12N	86W	14						0
	Wesche et al. 1977	1	West Branch-450 feet above site number 2		WY	CA	13N	868W	24						0
	Wesche et al. 1977	2	West Branch-at proposed diversion point		WY	CA	13N	86W	25	8,700				1976	0
	Wesche et al. 1977	3	West Branch-50 feet below mouth of Rabbit Creek		WY	CA	13N	86W	26					1976	0
	WGFD		Rabbit Creek		WY	CA	13N	86W	26					1976	0
	WGFD		Rabbit Creek		WY	CA	13N	86W	26						0
	USGS	09251900	North Fork of Little Snake River near Slater		WY	CA									0
	Wesche et al. 1977	1	Solomon Creek-800 feet above site number 2		WY	CA	13N	85W							W
	Wesche et al. 1977	2	Solomon Creek-at proposed diversion point		WY	CA	13N	85W		8,700				1976	0
	Wesche et al. 1977	3	Solomon Creek-directly below site number 2		WY	CA	13N	85W						1976	0
														1976	0

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	WGFD		Solomon Creek		WY	CA	12N	85W	7						0
	WGFD		Rose Creek		WY	CA	12N	85W	18						0
	WGFD		Green Timber Creek		WY	CA	12N	85W	4						0
	Wesche et al. 1977	1	Harrison Creek-100 feet above site number 2		WY	CA	13N	85W						1976	0
	Wesche et al. 1977	2	Harrison Creek-at proposed diversion		WY	CA	13N	85W		8,600				1976	0
	Wesche et al. 1977	3	Harrison Creek-150 feet above confluence with North Fork Little Snake		WY	CA	13N	85W						1976	0
	WGFD		Harrison Creek		WY	CA	12N	85W	4						0
	USGS	09251800	North Fork of Little Snake near Encampment	SDI	WY	CA									W
	WGFD		Deadman Creek		WY	CA	13N	85W	33						0
	Wesche et al. 1977	1	Deadman Creek-50 feet above site number 2		WY	CA	13N	85W	33					1976	0
	Wesche et at. 1977	2	Deadman Creek-at proposed diversion point		WY	CA	13N	85W	33	8,700				1976	0
	Wesche et al. 1977	3	Deadman Creek-1000 feet above North Fork of Little Snake confluence		WY	CA	13N	85W	33					1976	0
	Wesche et al. 1977	1	North Fork of Little Snake 2600 feet above site number 2		WY	CA	13N	85W						1976	0
	Wesche et al. 1977	2	North Fork of Little Snake at proposed diversion		WY	CA	13N	85W		8,500				1976	0
	Wesche et al. 1977	3	North Fork of Little Snake 30 feet above Deadman Creek confluence		WY	CA	13N	85W	33					1976	0
	WGFD		Third Creek		WY	CA	13N	85W	27						0
	WGFD		Dale Creek		WY	CA	13N	85W	26						0
	WGFD		Rhodine Creek		WY	CA	13N	85W	26						0
	CDOW	22020	North Fork Little Snake River above confluence with Little Snake River		CO	RT	12N	86W	16					1976	0
	Klein 1957		Little Snake about 3 miles above the turnoff to Oak Creek on the East Fork	SDI	CO	RT								1955	0
	Klein 1957		Little Snake below the Three Forks Ranch	SDI	CO	RT								1955	0

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	22032	South Fork Little Snake River above confluence with Little Snake		CO	RT	12N	86W	20	7,000				1976	O
	USGS	09252500	South Fork Little Snake near Battle Creek	SDI	CO	RT									W
	CDOW	22032	South Fork Little Snake River east of corrals in South Fork Park below USFS boundary		CO	RT	11N	87W	36	8,200				1976	O
	CDOW	26434	Tunnel Creek above dammed reservoir 1 mile upstream		CO	RT	11N	87W	26	7,860				1976	O
	CDOW	22032	South Fork Little Snake River along USFS Road 1147 in Sec. 1 & 2		CO	RT	10N	87W	1	7,880				1981	O
	USGS	09251500	Middle Fork Little Snake near Battle Creek	SDI	CO	RT									W
	CDOW		Middle Fork Little Snake River below USFS Road 551 bridge		CO	RT	12N	86W	21					1976	O
	CDOW	19263	Box Creek-above confluence with King Solomon Creek		CO	RT	11N	86W	12	7,320				1976	O
	CDOW	19263	Box Creek-above road not far upstream from King Solomon Creek		CO	RT	11N	86W	15	8,280				1976	O
	CDOW	20874	King Solomon Creek - confluence with Middle Fork of Little Snake River upstream two miles		CO	RT	12N	86W	35	7,760				1976	O
	CDOW	22006	Middle Fork Little Snake River - upper mile of section to confluence with King Solomon Creek		CO	RT	11N	86W	12					1976	O
	CDOW	20874	King Solomon Creek - 0.5 mile above USFS Road 500		CO	RT	11N	85W	22					1976	O
	USGS	405200106575800	Independence Creek near Columbine	405200/ 1065758	CO	RT	11N	85W	31	8,560			1975		ST
	CDOW	22222	Summit Creek 100 feet below USFS Road 129		CO	RT	11N	85W	19	7,820				1980	O
	CDOW	20711	Independence Creek-where Independence crosses USFS Road 503		CO	RT	11N	86W	12	7,000				1976	O
	CDOW	20711	Independence Creek-east from USFS Road 47 and Road 129 Intersection		CO	RT	11N	85N	31	8,000				1976	O
0.1	USGS	405340106543400	King Solomon Creek tributary near Columbine	405340/ 1065434	CO	RT	11N	85W	22	8,480			1975		ST

(continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USFS	11039102	Whiskey Creek 9 mi. north of Columbine	405800/ 1065500	CO	RT	12N	85W	12	8,360			1973-1979		ST
	CDOW	22715	Whiskey Creek - below bridge along USFS Road 550 - fished further down		CO	RT	12N	85W	32					1976	O
	CDOW	27020	East Fork Whiskey Creek - near headwaters in Section 13		CO	RT	12N	85W	27					1976	O
	CDOW	27044	West Fork Whiskey Creek - one mile above confluence		CO	RT	12N	85W	27					1976	O
	USGS	405855106543500	Whisky Creek above Whisky Park near Columbine	405855/ 1065435	CO	RT	12N	85W		8,460			1972-1977		ST
	USFS	11039103	Main Fork Little Snake near Columbine	405600/ 1065500	CO	RT	11N	89W	3	8,280			1975-1979		ST
	Wentz 1974	841	South Fork Little Snake River at mouth near Columbine		CO	RT	12N	86W						1972	O
	CDOW	22006	Middle Fork Little Snake		CO	RT	11N	85W	13					1976	O
	CDOW	26408	Silver City Creek - above confluence with Middle Fork of Little Snake		CO	RT	11N	85W	13					1976	O
	CDOW	26408	Silver City Creek - three tributaries shocked		CO	RT	11N	84W	30					1976	O
			YAMPA RIVER BASIN (continued)												
	USGS	402709108263000	Yampa River at Lily	402709/ 1082630	CO	MF	6N	98W	19	5,660			1950		ST
	McAda 1977	1	Lily Park		CO	MF	6N	96W						1974-1976	O
	Hagen 1962	8	Yampa River near Sunbeam		CO	MF	6N	96W						1962	O
	Hughes 1981		Yampa River near Sunbeam		CO	MF	6N	96W						1977	O
	CDOW		Yampa River		CO	MF	7N	95W	29					1980	O
	CDOW		Yampa River		CO	MF	7N	95W	30					1980	O
55.1	Annear 1980	Y-1	Yampa River, river mile 55.1		CO	MF	6N	96W						1977-1978	O
	EPA	070014	Yampa River downstream of Maybell	403255/ 1081115	CO	MF	7N	96W	21	5,860			1962-1972		ST
	CDOW		Yampa River		CO	MF	7N	96W						1982	O
	USGS	403212108051900	Yampa River at Bridge on County Road N	403121/ 1080519	CO	MF	7N	95W	20	5,890			1947-1950		ST
	Hughes 1981		Yampa River 1 to 4 km west of bridge, 2 km north of Maybell	SDI	CO	MF								1977-1978	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOH	000039	Yampa River near Maybell	403200/ 1080400	CO	MF	7N	95W	28	5,895			1968- 1978		ST
77.0	USGS	09251000	Yampa River near Maybell	403010/ 1080145	CO	MF	6N	95W	2	5,900	3,410	1904-I	1947-		W/ST
	CDOW		Yampa River		CO	MF	6N	98W						1980	O
	CDOW		Yampa River		CO	MF	6N	98W	19					1982	O
	CDOW	28250	Yampa River		CO	MF	6N	98W	20					1980	O
	USGS	403114107525100	Lay Creek		CO	MF	6N	95W	1	5,920				1979	O
	USGS	403712107371200	Lay Creek at Lay	403114/ 1075251	CO	MF	7N	93W	31	6,140			1981		ST
	Hughes 1981		Lay Creek above Lay	403712/ 1073712	CO	MF	8N	91W	29	6,760			1981		ST
	CDOW		Lay Creek upstream from the bridge, 1.2 km south of Lay	SD1	CO	MF								1979	O
	CDOW		Yampa River		CO	MF	6N	94W	17						
	CDOW		Yampa River		CO	MF	6N	94W	18					1980	O
	USGS	402145108001000	Yampa River		CO	MF	6N	94W						1980	O
	USGS	402038107585100	Jesse Gulch near Axial	402145/ 1080010	CO	MF	5N	94W	19	6,565			1981	1982	O
	USGS	402650107541900	Maudlin Gulch near Axial	402038/ 1075851	CO	MF	5N	94W	31	6,530			1981- 1982		ST
	CDOW	28274	Yampa River at Government Bridge	402650/ 1075419	CO	MF	6N	93W	26	5,980			1975- 1982		ST
	USGS	402409107503600	Morgan Gulch		CO	MF	6N	93W	32	6,000				1979	O
	USGS	09250700	Morgan Gulch near mouth near Axial	402409/ 1075036	CO	MF	5N	93W	9	6,070			1981		ST
	CDOW		Morgan Gulch near Axial	402009/ 1075306	CO	MF	5N	94W	36	6,340		1980	1980- 1982		W/ST
	USGS	402009107530700	Morgan Gulch		CO	MF	5N	93W	5					1981	O
	USGS	401359107572500	Straight Creek	402009/ 1075307	CO	MF	5N	94W	36	6,340			1980		ST
5	USGS	401925107523500	Straight Creek at Forks	401359/ 1075725	CO	MF	3N	94W	17	7,880			1980		ST
	USGS	402615107520500	Collom Gulch near Axial	401925/ 1075235	CO	MF	4N	94W	13	6,050			1981- 1982		ST
	USGS	402711107501800	Yampa River above Morgan Gulch near Lay	402615/ 1075205	CO	MF	6N	93W	30	6,010			1982		ST
1.2	USGS	402750107493301	Yampa River below Horse Gulch near Lay	402711/ 1075018	CO	MF	6N	93W	21	6,015			1982		ST
	USGS	402604107481700	Horse Gulch 1.2 miles above mouth	402750/ 1074933	CO	MF	6N	93W	22	6,080			1982		ST
			Yampa River at Sand Spring Gulch near Lay	402604/ 1074817	CO	MF	6N	93W	35	6,040			1982		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
			MILK CREEK BASIN												
	USGS	4021541074531000	Milk Creek near mouth near Axial	402154/ 1074531	CO	MF	5N	92W	19	6,170			1975-1976		ST
	CDOW	28286	Wilson Creek-Lower		CO	MF	5N	92W	30	6,240				1979	0
	CDOW	24961	Mile Creek-Thornburgh site north of Yellow-jacket Pass		CO	RB	5N	92W	7	5,800				1979	0
	USGS	09250610	Jubb Creek near Axial	401845/ 1074918	CO	MF	4N	93W	16	6,400	7.53	1975-[1]	1975-1981		W/ST
	USGS	09250600	Wilson Creek near Axial	401856/ 1074750	CO	MF	4N	93W	14	6,300	20.1	1975	1974-1981		W/ST
0.1	USGS	401851107475700	Taylor Creek near Axial	401851/ 1074757	CO	MF	4N	93W	14	6,300			1974		ST
0.1	USGS	09250510	Taylor Creek at mouth	401848/ 1074757	CO	MF	4N	93W	14	6,300	7.22	1975	1975-1981		W/ST
	USGS	401623107493400	A 6C (Taylor Creek)	401623/ 1074934	CO	MF	4N	93W	33	6,790			1975		ST
	USGS	401452107500600	Taylor Creek control near Axial	401452/ 1075006	CO	MF	3N	93W	9	7,320			1974		ST
	USGS	09250507	Wilson Creek above Taylor Creek near Axial	401853/ 1074758	CO	MF	4N	93W	14	6,310			1981		ST
	USGS	401348107520200	A4 (Wilson Creek Trib)	401348/ 1075202	CO	MF	3N	93W	18	7,600			1975		ST
	USGS	401348107530200	Wilson Creek above East Fork Creek near Axial	401348/ 1075302	CO	MF	3N	94W	13	7,160			1974		ST
	USGS	402005107411900	Stinking Gulch at Iles Grove	402005/ 1074119	CO	MF	5N	92W	35	6,310			1972-1975		ST
	CDOW	28262	Stinking Gulch-at 5 mile marker on Rt 46		CO	MF	5N	92W	31	6,240				1979	0
	USGS	401601107395300	Stinking Gulch near Thornburgh	401601/ 1073953	CO	MF	3N	92W	1	6,480			1975-1982		ST
	USGS	401948107445600	Milk Creek near Iles Grove	401948/ 1074456	CO	MF	4N	92W	7	6,210			1982		ST
	USGS	09250500	Milk Creek near Axial	401930/ 1074515	CO	MF	4N	92W	18	6,230		1903-1905	1958-1976		W/ST
	Lemons 1954		Milk Creek-Axial Reservoir		CO	MF	4N	93W	13	6,250				1952	0
	USGS	09250400	Good Spring Creek at Axial	401725/ 1074722	CO	MF	4N	93W	26	6,400		1975-1978	1974-1978		W/ST
	CDOW	22860	Good Spring Creek - one mile above Axial Basin		CO	MF	4N	93W	24					1981	0
	USGS	401459107470800	Good Spring Creek above Elkhorn Creek near Axial	401459/ 1074708	CO	MF	4N	93W	11	6,640			1974-1975		ST
	USGS	401542107481300	A 6A (Good Spring Creek tributary)	401542/ 1074813	CO	MF	3N	93W	3	6,960			1974-1975		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	401544107471800	A 6B (Good Spring Creek tributary)	401544/ 1074718	CO	MF	3N	93W	2	6,580			1975		ST
	Wentz 1974	797A	Good Spring Creek above Axial		CO	RB	2N	93W						1972	O
	USGS	09250000	Milk Creek near Thornburgh	401137/ 1074354	CO	RB	3N	92W	32	6,599	65	1952-I	1975-1982		W/ST
			YAMPA RIVER BASIN (continued)												
	USGS	402456107413500	Yampa River above Bell Rock Gulch near Hamilton	402456/ 1074135	CO	MF	5N	92W	2	6,085			1975		ST
			WILLIAMS FORK BASIN												
0.3	USGS	09249750	Williams Fork at mouth near Hamilton	402614/ 1073850	CO	MF	6N	91W	31	6,120		1976	1958-1980		W/ST
	CDOW		Williams Fork River		CO	MF	6N	91W	31					1980-1982	O
	CDOW	22804	Williams Fork River near mouth		CO	MF	6N	91W	31	6,000				1978	O
	USGS	402221107365200	Williams Fork below Morapos Creek at Hamilton	402221/ 1073652	CO	MF	5N	91W	21	6,220			1975		ST
	USGS	09249500	Williams Fork at Hamilton	40221/ 1073652	CO	MF	5N	91W	21	6,220		1904-I 1927			W
	USGS	09249700	Morapos Creek near Hamilton	SD1	CO	MF						1965-1967			W
1.5	USGS	401829107375600	Deer Creek near Hamilton	401829/ 1073756	CO	MF	4N	91W	20	6,480			1981-		ST
	USGS	401601107375400	Morapos Creek near Ilea Grove	401601/ 1073754	CO	MF	3N	91W	5	6,860			1981-1982		ST
3.5	USGS	401944107322900	Waddle Creek near Hamilton	401944/ 1073229	CO	MF	4N	90W	7	6,700			1981-1982		ST
	USGS	402152107301300	Williams Fork below Jeffway Gulch near Hamilton	402152/ 1073013	CO	MF	5N	90W	21	6,360			1975-1976		ST
0.5	USGS	402205107293701	S120 (Jeffway Gulch)	402205/ 1072937	CO	MF	5N	90W	21	6,480			1982		ST
3.9	USGS	402445107293101	S119 (Jeffway Gulch)	402445 1072931	CO	MF	5N	90W	4	7,040			1982		ST
	USGS	402127107273501	S126 (Williams Fork)	402127/ 1072735	CO	MF	5N	90W	26	6,420			1982		ST
0.3	USGS	402042107252101	S128 (Berry Gulch)	402042/ 1072521	CO	RT	4N	89W	31	6,570			1982		ST
0.2	USGS	401857107243500	South Fork of Williams Fork at mouth near Pagoda	401857/ 1072435	CO	RT	4N	89W	17	6,560			1975-1982		ST
	CDOW	22828	South Fork Williams Fork at confluence		CO	RT	3N	90W	36					1978	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
2	CDOW	22828	South Fork Williams Fork River		CO	RB	4N	89W	17	6,550				1977	O
	Klein 1957		South Fork Williams Fork about 4 miles south of the Forks	SDI	CO									1955	O
	Wentz 1974	803	Beaver Creek at mouth near Pagoda		CO	RT	4N	89W						1972	O
	CDOW	19150	Beaver Creek at confluence of Indian Creek		CO	RT	4N	89W	31					1977	O
	CDOW	19150	Beaver Creek - 1/2 mile above USFS boundary		CO	RT	3N	89W	24					1977	O
0.0	USGS	401546107260700	Cedar Creek at mouth near Pagoda	401546/ 1072607	CO	RT	3N	89W	6	6,800			1972-1975		ST
	Wentz 1974	804	Cedar Creek at mouth near Pagoda	401546/ 1072607	CO	RT	3N	89W	6	6,800				1972	O
	Wentz 1974	805	Coal Creek at mouth near Pagoda	401530/ 1072623	CO	RT	3N	89W	6	6,840				1972	O
0.0	USGS	401530107262300	Coal Creek at mouth near Pagoda	401530/ 1072623	CO	RT	3N	89W	6	6,840			1972-1975		ST
	USGS	09249200	South Fork of Williams Fork near Pagoda	401244/ 1072632	CO	RB	3N	90W	24	7,230		1965-1979	1975		W/ST
	CDOW	22804	Williams ork - 3 miles below Eas. and South Fork confluence		CO	RT	4N	89W	17	6,700				1978	O
	Klein 1957		Williams Fork about 6 miles east of Hamilton		CO	MF	5N	90W						1955	O
	Klein 1957		Williams Fork just below junction of South and East Forks		CO	RT	4N	89W	17					1955	O
0.1	USGS	40193107204100	Hayden Gulch near Pagoda	401913/ 1072041	CO	RT	4N	89W	13	6,790			1975-1981		ST
	USGS	09248500	East Fork of Williams Fork near Willow Creek		CO	RT						1943-1947			W
	USGS	09249000	East Fork of Williams Fork near Pagoda	401845 1071910	CO	RT	4N	88W	18	6,840		1953-1971	1975-1976		W/ST
	CDOW	27739	Pagoda Creek above confluence		CO	RB	3N	90W	36	7,000				1978	O
1.5	USGS	401747107161600	Willow Creek near Dunkley	401747/ 1071616	CO	RT	4N	88W	21	7,080			1981-1982		ST
	CDOW	22816	East Fork Williams Fork River - near confluence with Poose Creek		CO	RT	4N	88W	17					1978	O
	Wentz 1974	809	East Fork Williams Fork about Poose Creek near Pagoda		CO	RB	3N	88W						1972	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	Klein 1957		Williams Fork - eight tenths of a mile above the Willow Creek Store	SDI	CO	RT								1955	O
	USGS	09248600	East Fork of Williams Fork above Willow Creek	401540/ 1071740	CO	RT	3N	88W	5	7,170		1956-1972	1981		W/ST
	CDOW	21561	Poose Creek below confluence with Rough Creek		CO	RB	3N	88W	22					1977	O
	CDOW	21561	Poose Creek - 1.5 miles below Vaughn Lake by the USFS Road 16		CO	RB	2N	88W	22					1977	O
	CDOW	22816	East Fork Williams Fork River No. 2 - USFS boundary at Pyramid campground up to confluence with North Fork		CO	RB	2N	88W	12	8,300				1976	O
	CDOW	21561	Poose Creek - 1/4 mile above Vaughn Lake		CO	RB	2N	88W	22					1977	O
	CDOW	27145	Cyclone Creek		CO	RB	3N	88W	27					1977	O
	CDOW	23301	Rough Creek - above confluence with Poose Creek		CO	RB	2N	88W	3					1977	O
	CDOW	19364	Bunker Creek - just above confluence with East Fork Williams Fork River		CO	RB	3N	88W	36					1977	O
	CDOW	27068	Baldy Creek - lower 100 yards of stream		CO	RB	2N	88W	24					1977	O
	CDOW	27450	West Fork East Fork Williams Fork River - 1/2 mile below East Lost Lake		CO	RB	1N	88W	30					1976	O
	CDOW	22872	Black Mountain Creek - above confluence		CO	RB	2N	87W	32					1980	O
	CDOW	22816	East Fork Williams Fork River No. 2-0.75 miles east of Round Lake		CO	RB	1N	87W	9	10,800				1976	O
	Klein 1957		Williams Fork about 3 miles above the turnoff to Oak Creek on the East Fork		CO	RB	2N	88W	12					1955	O
			YAMPA RIVER BASIN (continued)												
	USGS	402627107390700	Yampa River above Williams Fork near Hamilton	402627/ 1073907	CO	MF	6N	91W	30	6,110			1975		ST
	Utah Int. 1981	Ml	No-Name Gulch		CO	MF	6N	91W	34					1981	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	Utah Int. 1981	N2	No-Name Gulch		CO	MF	6N	91W	34					1981	O
	Utah Int. 1981	N3	No-Name Gulch		CO	MF	6N	91W	34					1981	O
	Utah Int. 1981	N4	No-Name Gulch		CO	MF	6N	91W	34					1981	O
	Utah Int. 1981	N5	No-Name Gulch		CO	MF	6N	91W	33					1981	O
	USGS	403010107390001	S105 (Bogenschultz Creek)	403010/ 1073900	CO	MF	6N	91W	6	6,300			1982		ST
	Utah Int. 1981	J1	Johnson Gulch		CO	MF	6N	91W	35					1981	O
	Utah Int. 1981	P1	Pyeatt Gulch		CO	MF	6N	91W	36					1981	O
	Utah Int. 1981	J2	Johnson Gulch		CO	MF	6N	91W	35					1981	O
	USGS	09247600	Yampa River below Craig	402904/ 1073623	CO	MF	6N	91W	9/16	6,140		1975	1975-1980		W/ST
1.6	USGS	403050107354200	S107 (Pine Ridge Gulch)	403050/ 1073542	CO	MF	6N	91W	3	6,220			1982		ST
	USGS	09247500	Yampa River at Craig	402945/ 1073310	CO	RT	6N	91W	1/12	6,160		1901-[I] 1916	1975-1976		W/ST
			FORTIFICATION CREEK BASIN												
	USGS	403038107321800	Fortification Creek below Craig	403038/ 1073218	CO	MF	6N	90W	6	6,180			1975		ST
	CDOW	20329	Fortification Creek - at uppermost confluence with Highway 13		CO	MF	6N	90W	6	6,175				1980	O
	USGS	09247000	Fortification Creek at Craig	403051/ 1073227	CO	MF	6N	90W	6	6,185		1909-[I] 1947			W
	USGS	4030511073227	Fortification Creek at Craig	403051/ 1073227	CO	MF	6N	90W	6	6,185			1983		ST
	USGS	403251107314200	Fortification above Craig	403251/ 1073142	CO	MF	7N	91W	36	6,190			1975-1976		ST
	CDOW	19061	Little Bear Creek - 1.2 miles above confluence with Dry Fork Fortification Creek		CO	MF	8N	90W	13	6,350				1980	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	403745107254000	Cole Gulch near Craig	403745/ 1072540	CO	MF	8N	89W/ 90W	19/ 24	6,440			1972		ST
	USGS	403839107275000	Fortification Creek above Ralph White Lake	403839/ 1072750	CO	MF	8N	90W	23	6,330			1983		ST
	CDOW	21179	Hica Creek - confluence with Gilpin Creek up 1.3 miles to Small Lake		CO	RT	10N	83W	35					1976	0
	USGS	09246900	Fortification Creek near Craig	404523/ 1073245	CO	MF	9N	91W	12	6,550		1955-1960	1957-1958		W/ST
	CDOW	21111	South Fork Fortification Creek - 1/2 mile above confluence with North Fork Fortification Creek		CO	MF	10N	90W	29					1980	0
			YAMPA RIVER BASIN (continued)												
0.6	USGS	402911107323500	Flume Gulch near Craig	402911/ 1073235	CO	MF	6N	90W	7	6,220			1981		ST
	Utah Int. 1981	Fl	Flume Gulch		CO	MF	6N	90W	32					1981	0
	CDOW	22905	Yampa River No. 3		CO	RT	7N	90W	36	6,200				1976	0
	USGS	09246550	Yampa River below Elkhead Creek near Craig	402950/ 1073034	CO	RT	6N	90W	8	6,180		1975	1975-1980		W/ST
	USGS	09246500	Elkhead Creek near Craig	403151/ 1072610	CO	MF	7N	90W	25	6,220		1906-1918	1975-1976		W/ST
	Wentz 1974	816	Elkhead Creek at mouth near Elkhead		CO	MF	7N	90W						1972	
	CDOW	20141	Elkhead Creek at Highway Bridge		CO	RT	7N	90W	36	6,200				1969	0
	CDOW	20141	Elkhead Creek No. 2 below confluence with North Fork Elkhead		CO	RT	7N	89W	2	6,400				1977	0
	USGS	403530107191300	Elkhead Creek above Elkhead Reservoir	403530/ 1071913	CO	RT	7N	88W	1	6,400			1975-1976		ST
	CDOW	20141	Elkhead Creek No. 3 - above Hole-in-the-Wall Creek & below California Creek		CO	RT	8N	88W	8	6,840				1977	0
	Wentz 1974	817	Dry Fork Elkhead Creek at mouth near Elkhead		CO	RT	8N	88W						1972	0
	Wentz 1974	818	North Fork Elkhead Creek at mouth near Elkhead		CO	RT	8N	88W						1972	0
	CDOW	20153	North Fork Elkhead Creek above confluence with Elkhead Creek		CO	RT	8N	88W	8	6,800				1977	0

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	09245500	North Fork Elkhead Creek near Elkhead	404050/ 1071712	CO	RT	8N	88W	5	6,980		1910-1973[1]	1975-1976		W/ST
	CDOW	19530	Circle Creek - above confluence with Elkhead Creek		CO	RT	9N	87W	3					1976	O
	Wentz 1974	820	South Fork Elkhead Creek near mouth near Elkhead		CO	RT	9N	87W						1972	O
	Wentz 1974	821	Elkhead Creek above South Fork near Elkhead		CO	RT	9N	87W						1972	O
	USGS	09245000	Elkhead Creek near Elkhead	404011/ 1071705	CO	RT	8N	88W	8	6,845	64.2	1910-[1]	1958-1975		W/ST
	USGS	09244500	Elkhead Creek near Clark	404356/ 1071008	CO	RT	9N	87W	17	7,800		1942-1973	1961-1973		W/ST
	CDOW	20266	First Creek - 1 mile west of USFS Road 150		CO	RT	9N	87W	17	6500				1976	O
	CDOW	20266	First Creek - 1 mile east of USFS Road 150		CO	RT	9N	86W	20	7,200				1976	O
	CDOW	19035	Armstrong Creek - below USFS Road 150		CO	RT	9N	87W	15	7,910				1976	O
	CDOW	19035	Armstrong Creek - at end of USFS Road		CO	RT	9N	86W	7	8,080				1976	O
	CDOW	26143	Jokodowski Creek - confluence with Elkhead Creek		CO	RT	9N	87W	10	8,000				1976	O
	CDOW	26143	Jokodowski Creek - 1/4 mile upstream from intersection with trail 1144 in section 4		CO	RT	10N	87W	4	9,000				1976	O
	CDOW	20141	Elkhead Creek No. 3 - above confluence with Jokodowski Creek		CO	RT	10N	87W	3	8,400				1977	O
	CDOW	22397	Torso Creek - above USFS Road 150		CO	RT	9N	87W	3	8,100				1976	O
	CDOW	22397	Torso Creek - Ponds 1 mile upstream		CO	RT	9N	87W	2	8,800				1976	O
	CDOW	22210	Stuckey Creek - 3/4 mile upstream from confluence with Elkhead Creek		CO	RT	9N	87W	16					1976	O
0.6	USGS	402845107185100	Smuin Tribe Creek near Hayden	402845/ 1071851	CO	RT	6N	88W	13	6,340			1981		ST
1.5	USGS	402829107193700	Smuin Gulch near Hayden	402829/ 1071937	CO	RT	6N	88W	13	6,360			1981-1982		ST
	USGS	4020930107174200	Yampa River below Hayden	4020930/ 1071742	CO	RT	6N	88W	8	6,300			1975-1976		ST
	Wentz 1974	823	Holderness Gulch near Hayden		CO	RT	6N	89W						1972	O
	Prewitt 1977	Y-1	Yampa River 1 km west of Hayden		CO	RT	6N	88W						1975-1976	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	Eddy 1976	YM-14	Yampa River downstream from Hayden	402930/ 1071742	CO	MF	6N	88W	8					1975	O
	Eddy 1976	YM-14-1	Yampa River downstream from Dry Creek		CO	MF								1975	O
0.25	USGS	402952107161600	Dry Creek below sewage plant at Hayden	402952/ 107161600	CO	RT	6N	88W	9	6,330			1975		ST
0.5	USGS	402939107160100	Dry Creek above sewage plant at Hayden	402939/ 1071601	CO	RT	6N	88W	9	6,340			1975		ST
	Peabody 1980	D-3	Lower Dry Creek		CO	RT	6N	88W	34					1974	O
	Peabody 1980	D-1	Upper Dry Creek		CO	RT	5N	88W	20					1974	O
	Peabody 1980	D-2	Hubberson Gulch - just above confluence with Dry Creek		CO	RT	5N	88W	16					1974	O
	Wentz 1974	825	Dry Creek near Hayden		CO	RT	5N	88W						1972	O
	USGS	09244470	Stokes Gulch near Hayden	402806/ 1071447	CO	RT	6N	88W	22	6,375	13.6	1976-I	1979-1982		W/ST
	USGS	402605707181500	Dill Gulch near Hayden	402605/ 1071815	CO	RT	6N	88W	31	6,500			1981-1982		ST
0.2	USGS	402558107182100	Dill Gulch Tributary .2 miles above mouth	402558/ 1071821	CO	RT	6N	88W	31	6,510			1982		ST
0.3	USGS	09244464	Hubberson Gulch near Hayden	402328/ 1071615	CO	RT	5N	88W	16	6,780	8.08	1977	1978-1982		W/ST
1.4	USGS	09244460	Watering Trough Gulch near Hayden	402257/ 1071649	CO	RT	5N	88W	20	6,920	2.65	1977	1979-1981		W/ST
	USGS	402952107161600	Yampa River below sewage plant below Steamboat Springs	402952/ 1071616	CO	RT	6N	88W	4	6,315			1975		ST
	USGS	403006107154800	Yampa River at Hayden	403006/ 1071548	CO	RT	6N	88W	4	6,325			1975-1976		ST
	Eddy 1976	YM-13	Yampa River at Hayden	403006 1071548	CO	MF	6N	88W	4					1975	O
	USGS	403051107124500	Yampa River below Morgan Creek near Hayden	403051/ 1071245	CO	RT	7N	88W	36	6,360			1975		ST
	Eddy 1976	YM-12	Yampa River downstream from Morgan Creek confluence near Hayden	403051 1071245	CO	MF	7N	88W	36					1975	O
	Wentz 1974	826	Morgan Creek above Mat Gulch near Hayden		CO	RT	7N	87W						1972	O
	Klein 1957		Yampa River 1 mile east of Hayden		CO	RT	6N	88W	8					1955	O
	Klein 1957		Yampa River just below Mount Harris		CO	RT	6N	87W	15					1955	O
	USGS	403051107081600	Sage Creek below Mt. Harris	403051/ 1070816	CO	RT	6N	87W	3	7,200			1975		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	402918107094400	Sage Creek near Hayden	402918/ 1070944	CO	RT	6N	87W	8	6,410			1975-1976		ST
	USGS	402917107094501	Sage Creek at Highway 40	402917/ 1070945	CO	RT	6N	87W	8	6,410			1979		ST
	USGS	402855107101501	Sage Creek above Hayden Station	402855/ 1071015	CO	RT	6N	87W	17	6,420			1979		ST
	USGS	402522107134100	Sage Creek near Mount Harris	402522/ 1071341	CO	RT	5N	88W	2	6,740			1975-1976		ST
	Wentz 1974	828	Grassy Creek near mouth near Mount Harris	402702/ 1070858	CO	RT	6N	87W						1972	O
	Peabody 1980	S-3	Lower Sage Creek		CO	RT	5N	88W	2					1974	O
	Peabody 1980	S-2	Sage Creek below Sage Creek Reservoir		CO	RT	5N	88W	13					1974	O
	Peabody 1980	S-1	Upper Sage Creek		CO	RT	5N	88W	25					1974	O
	Wentz 1974	827	Sage Creek above lower reservoir near Mount Harris		CO	RT	5N	88W						1972	O
	Peabody 1980	P-1	Mud slide lake		CO	RT	5N	88W	15					1974	O
	Peabody 1980	P-2	Upper beaver pond		co	rt	5n	88w	27					1974	O
	USGS	09244415	Sage Creek above Sage Creek Reservoir near Hayden	402301/ 1071134	CO	RT	5N	87W	18	7,210		1980-I	1981-		W/ST
	Ames 1977	Y3	Yampa River 2.2 km west of Hayden down a dirt road which turns south off of Highway 40		CO	RT	6N	88W						1975-1976	O
	Eddy 1976	YM-11	Yampa River downstream from diversion near Hayden, USGS gage 09244410	402918/ 1070933	CO	RT	6N	87W	9					1975	O
	USGS	09244400	Yampa River near Hayden	402921/ 1070933	CO	RT	6N	87W	9	6,380		1965-I	1975-		W/ST
	USGS	09244410	Yampa River below diversion near Hayden	402918/ 1070933	CO	RT	6N	87W	9	6,380	1,430	1972 1965	1979 1975-1982		W/ST
	USGS	402917107091900	Gibraltar Canal near Hayden	402917/ 1070919	CO	RT	6N	87W	9	6,410			1966-1973		ST
	USGS	402702107085800	Grassy Creek near mouth near Mt. Harris	402702/ 1070858	CO	RT	6N	87W	28	6,530			1972		ST
	USGS	09244300	Grassy Creek near Mt. Harris	402649/ 1070812	CO	RT	6N	87W	27	6,580		1958-1966	1975-1982		W/ST
	USGS	402330107082000	Grassy Creek at Grassy Gap	402330/ 1070820	CO	RT	5N	87W	16	6,960			1975-1982		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
0.1	USGS	402832107080200	Wolf Creek near Hayden	402831/ 1070802	CO	RT	6N	87W	15	6,410			1975		ST
	USGS	402902107043600	Yampa River above Tow Creek Oil Field	402902/ 1070436	CO	RT	6N	86W	18	6,450			1975		ST
	Eddy 1976	YM-10	Yampa River at Tow Creek Oil Field	402902/ 1070436	CO	MF	6N	86W	18					1975	0
0.3	USGS	402908107025100	Tow Creek near mouth at US 40 Bridge	402908/ 1070251	CO	RT	6N	86W	9	6,460			1975		ST
	USGS	402854107020500	Yampa River below Trout Creek at Milner	402854/ 1070205	CO	RT	6N	86W	16	6,475			1975-1976		ST
	Eddy 1976	YM-9	Yampa River downstream from Trout Creek confluence near Milner	402854/ 1070205	CO	MF	6N	86W	16					1975	0
	Klein 1957		Yampa River - Milner Bridge		CO	RT	6N	86W	15					1955	0
	USGS	402908107014000	Cheney Creek near Milner	402908/ 1070140	CO	RT	6N	86W	10	6,530			1975		ST
			TROUT CREEK BASIN												
	USGS	402816107003800	Trout Creek near Milner	402816/ 1070038	CO	RT	6N	86W	14	6,510			1975		ST
	Goettl & Edde 1980		Black Station (Trout Creek)		CO	RT	6N	86W	14	6,500				1975-1976	0
	CDOW	22462	Trout Creek No. 1- three areas up to Fish Creek		CO	RT	6N	86W	15	6,600				1976	0
	USGS	402720106591200	Trout Creek above Milner	402720/ 1065912	CO	RT	6N	86W	25	6,530			1981-1982		ST
	Klein 1957		Trout Creek, at bridge crossing, about one half mile above its confuence with the Yampa		CO	RT	6N	86W	15	6,510				1955	0
	Goettl & Edde 1980		Bedell Station (Trout Creek)		CO	RT	6N	86W	25	6,525				1975-1976	0
	Klein 1957		Trout Creek about 3 miles above its confluence with the Yampa		CO	RT	6N	86W						1955	0
	CSU	C14	Little Trout Creek just above Trout Creek confluence	402635/ 1065835	CO	RT	6N	86W	25	6,540			1975-1976		ST
	Goettl & Edde 1980		Liske Station (Trout Creek)		CO	RT	6N	86W	36	6,550				1975-1976	0
0.1	USGS	402530106585700	Fish Creek at mouth near Milner	402530/ 1065857	CO	RT	5N	86W	1	6,580			1975-1982		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	Wentz 1974	829	Fish Creek at mouth near Milner		CO	RT	5N	86W						1972	O
	CDOW	20280	Fish Creek No. 1 - in Fish Creek Canyon by USGS guage		CO	RT	6N	86W	15	6,600				1976	O
	USGS	09244100	Fish Creek near Milner	402003/ 1070819	CO	RT	4N	87W	11	6,920		1955-1973[1]	1958-1982		W/ST
	CDOW		Fish Creek		CO	RT	5N	86W	1					1980	O
	CDOW		Fish Creek		CO	RT	5N	86W	2					1980	O
	CDOW		Fish Creek		CO	RT	5N	86W	3					1980	O
	CDOW		Fish Creek		CO	RT	5N	86W	16					1980	O
	Geottl & Edde 1980		Fish Creek Station		CO	RT	5N	86W	17	6,750				1975-1976	O
	CDOW	20280	Fish Creek No. 2 - from confluence with Austrian Creek along USFS Rd 925 upstream		CO	RT	3N	87W	3	8,200				1976	O
	CDOW	20280	Fish Creek No. 2		CO	RT	3N	87W	27	9,600				1976	O
	CDOW	23185	West Fish Creek - 1 mile downstream from intersection with USFS Trail 1111		CO	RT	4N	87W	33					1976	O
	USGS	402536106582700	Trout Creek below Foidel Creek near Milner	402536/ 1065827	CO	RT	6N	85W	31	6,580			1975		ST
	Goettl & Edde 1980		Yowell Station (Trout Creek)		CO	RT	5N	85W	18	6,740				1975-1976	O
	CDOW	21181	Middle Creek - 2 miles up from the confluence below Foidel Creek		CO	RT	5N	85W	6	6,604				1976	O
	CDOW	28248	Foidel Creek		CO	RT	5N	86W	13	6,700				1979	O
	CDOW		Foidel Creek		CO	RT	5N	86W	13					1980	O
0.9	USGS	09243900	Foidel Creek at mouth near Oak Creek	402325/ 1065939	CO	RT	5N	86W	14	6,730	17.5	1975	1975-		W/ST
	USGS	402210107020900	Williams Fork at Hamilton	402210/ 1070209	CO	RT	5N	86W	21	6,790			1974		ST
6.9	USGS	09243800	Foidel Creek near Oak Creek	402045/ 1070504	CO	RT	5N	86W	31	6,880	8.61	1975	1975-		W/ST
	USGS	402007107050400	North Fork of Foidel Creek at mouth	402007/ 1070504	CO	RT	4N	86W	7	6,920			1983		ST
	USGS	401847107063400	South Fork of Foidel Creek above mine	401847/ 1070634	CO	RT	4N	87W	13	7,200			1983		ST
	USGS	401849107064500	Surface run-off in sage-grass in Eckman Park	401849/ 1070645	CO	RT	4N	87W	13	7,280			1983		ST
	Wentz 1974	830	Middle Creek near mouth near Milner		CO	RT	5N	86W						1972	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	09243700	Middle Creek near Oak Creek	402308/ 1065933	CO	RT	5N	86W	13	6,720	23.5	1975	1975-1982		W/ST
	CDOW		Middle Creek		CO	RT	5N	86W	12					1980	O
	CDOW		Middle Creek		CO	RT	5N	86W	13					1980	O
	Wentz 1974	831	Trout Creek above Middle Creek near Milner	402416/ 1065808	CO	RT	5N	85W						1972	O
	USGS	402416106580800	Trout Creek above Foidel Creek near Milner	402416/ 1065808	CO	RT	5N	86W	12	6,660			1972-1975		ST
	CSU	C12	Trout Creek just below confluence with Fish Creek	402330/ 1065730	CO	RT	5N	85W	18	6,740			1975		ST
	CSU	C11	Trout Creek approximately .7 miles north of Edna Mine	402200/ 1065820	CO	RT	5N	85W	30	6,870			1975-1976		ST
	CDOW		Trout Creek		CO	RT	5N	85W	19					1980-1981	O
	CDOW		Trout Creek		CO	RT	5N	86W	36					1980-1981	O
	Goettl & Edde 1980		McKune Station (Trout Creek)		CO	RT	5N	86W	36	6,920				1975-1976	O
	Goettl & Edde 1980		Green Station (Trout Creek)		CO	RT	5N	86W	36	7,000				1975-1976	O
	CSU	C8	Trout Creek at north side of Edna Mine	402040/ 1065845	CO	RT	5N	86W	36	6,980			1973-1977		ST
	Canton & Ward 1978	C8	Trout Creek		CO	RT	5N	86W	36	7,015				1975-1977	O
	CSU	C6	Trout Creek in northern section of Edna mine	402015/ 1065850	CO	RT	4N	86W	12	7,030			1973-1977		ST
	Canton & Ward 1978	C6	Trout Creek		CO	RT	5N	86W	36	7,020				1975-1977	O
	CSU	C4	Trout Creek approximately 2 miles downstream from Little Trout Creek	402000/ 1065900	CO	RT	4N	86W	12	7,040			1973-1977		ST
	Canton & Ward 1980	C4	Trout Creek		CO	RT	5N	86W	36	7,055				1975-1977	O
	Goettl & Edde 1980		Water pump station - Trout Creek		CO	RT	4N	86W	12	7,080				1975-1976	O
	CSU	C5	Surface pool in northern section of Edna Mine	401950/ 1065855	CO	RT	4N	86W	12	7,070			1973-1977		ST
	CDOW		Trout Creek		CO	RT	4N	86W	12					1980-1981	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CSU	C9	Intermittent stream above Trout Creek confluence	401930/ 1065920	CO	RT	4N	86W	13	7,100			1975-1977		ST
	Canton & Ward 1978	C9	Trout Creek		CO	RT	5N	85W	18	6,725				1975-1977	O
	Goettl & Edde 1980		Old dragline station Trout Creek		CO	RT	4N	86W	13	7,120				1975-1976	O
	Goettl & Edde 1980		Homestead station Trout Creek		CO	RT	4N	86W	14	7,200				1975-1976	O
	CSU	C3	Trout Creek .8 miles downstream from Little Trout confluence	401922/ 1065956	CO	RT	4N	86W	14	7,130			1973-1977		ST
	CDOW	22462	Trout Creek No. 1 - two areas up to Edna Mine		CO	RT	4N	86W	12	6,900				1976	O
	CDOW	22462	Trout Creek No. 2 - around Edna Mine Area		CO	RT	4N	86W	12	6,900				1976	O
	CSU	C13	Little Trout Creek just above confluence with Trout Creek	401855/ 1070025	CO	RT	4N	86W	14	7,200			1975-1976		ST
	CDOW		Trout Creek		CO	RT	4N	86W	14					1980-1981	O
	CSU	C2	Trout Creek just above Little Trout Creek confluence	401840/ 1070040	CO	RT	4N	86W	23	7,240			1973-1977		ST
	Canton & Ward 1978	C2	Trout Creek		CO	RT	4N	86W	23	7,245				1975-1977	O
	CDOW	22462	Trout Creek - where USFS Road 950 crosses Trout Creek		CO	RB	3N	86W	18					1976	O
	CDOW	22462	Trout Creek - one mile below Sheriff Reservoir		CO	RB	2N	87W	22					1976	O
	USGS	401816107011000	Trout Creek near Oak Creek	401816/ 1070110	CO	RT	4N	86W	22	7,300			1975		ST
	CSU	C1	Trout Creek 2 miles upstream from confluence with Little Trout Creek	401745/ 1070200	CO	RT	4N	86W	27	7,400			1957-1975		ST
	Canton & Ward 1978	C1	Trout Creek		CO	RT	4N	86W	22	7,395				1975-1977	O
	Canton & Ward 1978	C0	Trout Creek		CO	RT	4N	86W	28	7,415				1975-1977	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	Goettl & Edde 1980		Apex Station, Trout Creek		CO	RT	4N	86W	33	7,600				1975-1976	O
	Goettl & Edde 1980		Routt Station, Trout Creek		CO	RT	3N	86W	18	8,080				1975-1976	O
	Goettl & Edde 1980		Bear River Station	SDI	CO	RT								1975	O
	CDOW	22462	Trout Creek No. 2 below USFS boundary		CO	RT	3N	86W	18	7,980				1976	O
	USGS	09243000	Trout Creek near Phippsburg	400904/ 1070752	CO	RB	2N	87W		9,600		1953-1958	1957-1975		W/ST
	CDOW	25115	Sand Creek from Sheriff Reservoir 3 miles upstream		CO	RB	2N	87W	14	10,000				1976	O
	CDOW	25115	Sand Creek - from end of lower station upstream		CO	RB	2N	87W	36	11,000				1976	O
	CDOW	22462	Trout Creek No. 4 - upstream end of lower station 1.5 miles and then up each fork of confluence there 1.5 miles		CO	RB	2N	87W	36	10,800				1976	O
	CDOW	22462	Trout Creek No. 4 - from Sheriff River 2.5 miles upstream		CO	RB	2N	87W	14	10,000				1976	O
	Wentz 1974	832	Trout Creek near source near Oak Creek		CO	RB	2N	87W						1972	O
			YAMPA RIVER BASIN (continued)												
	Ames 1977	Y2	Yampa River-.64km west of Milner south off Hwy 40, dirt road where a bridge crosses the river	SDI	CO	RT	6N	86W	16	6,480				1975	O
	USGS	402840107004200	Yampa River at Milner	402840/ 1070042	CO	RT	6N	86W	15	6,490			1975		ST
	Eddy 1976	YM-8	Yampa River at Milner	402840/ 1070042	CO	RT	6N	86W	15					1975	O
180.0	CDOH	000038	Yampa River at Milner	402900/ 1070000	CO	RT	6N	86W	14	6,530			1968-		ST ST
			ELK RIVER BASIN												
0.3	CDOH	000154	Elk River near Milner	402900/ 1065844	CO	RT	6N	86W	13	6,530			1979-1982		ST
	Klein 1957		Elk River at its confluence with the Yampa		CO	RT								1955	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
0.3	USGS	402903106584100	West Fork Elk River near mouth at US Bridge	402903/ 1065841	CO	RT	6N	86W	13	6,530			1975		ST
	USGS	402953106581000	North Fork Michigan River below Seven Utes	402953/ 1065810	CO	RT	6N	85W	7	6,560			1976-1977		ST
.02	USGS	402913106580400	Elk River near mouth at US 40 Bridge	402913/ 1065804	CO	RT	6N	85W	7	6,540			1975		ST
3.0	USGS	09242500	Elk River near Trull	403053/ 1065712	CO	RT	6N	85W	5/6	6,590		1904-1927[1]	1947-1976		W/ST
	Wentz 1974	834	Deep Creek below Smith Creek near Milner		CO	RT	8N	86W						1972	O
	Klein 1957		Elk River 4.3 miles (road mileage) above Steamboat Springs		CO	RT	6N	85W	5					1955	O
	Klein 1957		Side channel of the Elk River about 1/2 mile above confluence of Elk and Yampa (110 ft.)		CO	RT	6N	86W	13					1955	O
2.5	USGS	403333106504900	Creek Routt-(Hot Springs Creek)	403333/ 1065049	CO	RT	7N	84W	18	7,480			1976		ST
	CDOW	20646	Hot Spring Creek-along Highway 139		CO	RT	7N	85W	14	6,880				1976	O
	CDOW	20646	Hot Spring Creek-along USFS Road 314		CO	RT	7N	84W	3	9,600				1976	O
	CDOW	26004	Bear Creek - along Road 314		CO	RT	7N	84W	16					1976	O
0.1	USGS	09242000	Mad Creek near Steamboat Springs	403356/ 1065319	CO	RT	7N	85W	14	6,700		1912-1917	1957-1976		W/ST
	CDOW	21042	Mad Creek - below confluence of North and Middle Mad Creek		CO	RT	7N	85W	14					1976	O
	Klein 1957		Mad Creek just above and below the highway bridge crossing		CO	RT	7N	85W	14	6,760				1955	O
	Klein 1957		Mad Creek, 1/2 mile above the highway		CO	RT	7N	85W	14					1955	O
	Klein 1957		Mad Creek, 2.9 miles up from its confluence with the Elk		CO	RT	7N	84W	6					1955	O
	CDOW	27727	South Fork Mad Creek - at confluence		CO	RT	7N	84W	6					1976	O
	CDOW	27703	Middle Fork Mad Creek - 300 yards above North Fork confluence		CO	RT	8N	84W	21					1977	O
	CDOW	27715	North Fork Mad Creek - 300 yards above Middle Fork confluence		CO	RT	8N	84W	21					1977	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	27715	North Fork Mad Creek - 1/2 mile below Luna Lake		CO	RT	8N	83W	26					1977	O
	Klein 1957		Elk River, .1 mile above Mad Creek		CO	RT	7N	85W	14					1955	O
	CDOW	19198	Big Creek - 1/4 mile in from USFS boundary, 3/4 mile up from Elk River		CO	RT	7N	85W	10					1977	O
	Klein 1957		Big Creek, 2-1/4 miles up from its confluence with the Elk		CO	RT	8N	85W	35					1955	O
	CDOW	27676	Ditch Creek - 1/2 mile up from confluence with Big Creek		CO	RT	8N	85W	26					1977	O
	CDOW	27664	Corral Creek - 1/4 mile up from Road		CO	RT	8N	85W	13					1977	O
	CDOW	26890	Roaring Fork Creek - 200 yards above confluence with Big Creek		CO	RT	8N	84W	6					1977	O
	CDOW	19198	Big Creek - where USFS Road 471 comes to Big Creek		CO	RT	9N	84W	34					1977	O
	CDOW	27640	North Fork Big Creek - 300 yards above confluence with Big Creek		CO	RT	9N	84W	34					1977	O
	CDOW	19198	Big Creek - 100 yards above confluence with North Fork		CO	RT	9N	84W	34					1977	O
	CDOW	26395	Smith Creek below confluence with Renfro Creek and Deep Creek		CO	RT	8N	85W	30	6,900				1976	O
	CDOW	26395	Smith Creek - 1 mile below USFS boundary		CO	RT				8,000				1976	O
	Klein 1957		Elk River, 4.7 miles south of Clark		CO	RT	8N	85W	17					1955	O
	Klein 1957		Bridge crossing west of Clark		CO	RT	9N	85W	28					1955	O
	Klein 1957		Bridge crossing north of Clark		CO	RT	9N	85W	27	9,267				1955	O
	CDOW	20189	North Fork Elk River - Stevens Creek at Diamond Park		CO	RT	8N	84W	2	8,600				1976	O
	CDOW	21840	Sand Creek 1 mile above USFS boundary and above diversion structure		CO	RT	9N	85W	32	7,200				1976	O
	CDOW	20165	Elk River No. 1 -3 miles upstream from Yampa River		CO	RT	9N	85W	18	6,650				1976	O
	CDOW	20165	Elk River No. 1 - Haystack Ranch		CO	RT	9N	85W	27	7,4000				1976	O
	USGS	09241000	Elk River at Clark	404303/ 1065455	CO	RT	9N	85W	27	7,267	206	1910-I	1958-		W/ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	22842	Willow Creek No. 1- above USFS Road 400		CO	RT	9N	85W	24	7,600				1976	O
	Klein 1957		Willow Creek	SDI	CO	RT								1955	O
	CDOW	20963	Lester Creek from confluence with Willow Creek to Pearl Lake		CO	RT	9N	85W	3	7,720				1976	O
	CDOW	20963	Lester Creek from Pearl upstream through canyon		CO	RT	9N	85W	26	8,000				1976	O
	CDOW	19148	Beaver Creek about confluence with Willow Creek		CO	RT	9N	85W	3	7,960				1976	O
	CDOW	19148	Beaver Creek 0.5 mile above USFS boundary where stream splits		CO	RT	10N	85W	32	8,300				1976	O
	CDOW	21600	Red Creek below Cottonwood Gulch Road		CO	RT	9N	85W	4	7,900				1976	O
	CDOW	22842	Willow Creek No. 1 - below Highway 129		CO	RT	10N	85W	32	8,000				1976	O
	CDOW	21206	Mill Creek private land 0.4 mile up from Steamboat Lake		CO	RT	10N	86W	36	8,000				1976	O
	CDOW	21206	Mill Creek on USFS land about 2 miles above Steamboat Lake		CO	RT	9N	86W	33	8,200				1976	O
	CDOW	21787	Rock Creek - along USFS Road 440 in Section 25		CO	RT	9N	85W	25					1976	O
	CDOW	26321	Rock Creek - along USFS Road 440 - Section 25		CO	RT	9N	85W	25					1976	O
	CDOW	21282	Morgan Creek - 0.3 mile from confluence with Reed Creek		CO	RT	9N	84W	20					1976	O
0.1	USGS	404610106545600	Beaver Creek near Hahns Peak	404610/ 1065456	CO	RT	9N	85W	3	7,900			1975		ST
	CDOW		Willow Creek		CO	RT	9N	85W	4					1981	O
1.1	USGS	4047561065551000	Ways Gulch at Hahns Peak	404756/ 1065551	CO	RT	10N	85W	28	8,070			1975		ST
	CDOW		Ways Gulch		CO	RT	10N	85W	29					1981	O
0.3	USGS	404845106571400	Deep Creek at Hahns Peak	404845/ 1065714	CO	RT	10N	85W	20	8,070			1975		ST
	CDOW	20317	Floyd Creek - just into USFS land one mile west of Steamboat lake above diversion ditch		CO	RT	10N	86W	26	8,000				1976	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	20317	Floyd Creek - 1.75 mile east of Diamond Peak, just above where two minor tributaries run in		CO	RT	10N	86W	32	8,700				1976	O
	CDOW	20925	Larson Creek - one mile west of Steamboat Lake just into USFS land		CO	RT	10N	86W	23	8,000				1976	O
	CDOW	20925	Larson Creek - two miles west of Steamboat Lake		CO	RT	10N	86W	22	8,500				1976	O
	CDOW	22842	Willow Creek - 1/4 mile below Hahns Peak Lake Dam		CO	RT	10N	86W	19					1976	O
	USFS	11038501	Floyd Creek above First Boundary	404800/ 1070100	CO	RT	10N	86W	26	8,140			1975-1978		ST
	USGS	09240800	South Fork Elk River near Clark	404443/ 1064824	CO	RT	9N	84W	18	7,540		1966-1973	1966-1973		W/ST
	CDOW	22955	Coulton Creek		CO	RT	9N	84W	7	7,600				1976	O
	CDOW	20610	Hinman Creek - confluence with Elk River		CO	RT	9N	84W	8	7,600				1976	O
	CDOW	20610	Hinman Creek - 1/2 mile above confluence with Farwell Creek down to Scotts Run		CO	RT	10N	84W	8	8,970				1976	O
	CDOW	21888	Scotts Run Creek - confluence with Hinman Creek		CO	RT	10N	84W	28	8,080				1976	O
	CDOW	21888	Scotts Run Creek - headwaters		CO	RT	10N	84W	15	8,600				1976	O
	USGS	09240500	Elk River at Hinman Park	404506/ 1064928	CO	RT	9N	84W	8	7,680			1913-1918		W
	USGS	404506106492800	Elk River below South Fork at Hinman Park	404506/ 1064928	CO	RT	9N	84W	8	7,680			1975-1976		ST
	CDOW	20191	South Fork Elk River along Road 443, below Three Island Creek		CO	RT	9N	84W	9					1976	O
	CDOW	25987	Burn Creek - ponds at confluence with South Fork of Elk River		CO	RT	9N	84W	15	8,400				1976	O
	CDOW	25987	Burn Creek - one mile upstream from confluence with South Fork of Elk River in Section 23		CO	RT	9N	84W	23	8,800				1976	O
	CDOW	25999	Bear Canyon Creek - one mile upstream from confluence with South Fork of Elk River in Section 13		CO	RT	9N	84W	13	8,400				1976	O
	CDOW	26446	Three Island Creek		CO	RT	9N	83W	1					1976	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	26206	Luba Creek 1/2 mile upstream from confluence with South Fork of Elk River		CO	RT	9N	83W	16					1976	O
	CDOW	20191	South Fork of Elk River one mile above confluence with Wolverine Creek down to Three Island Creek		CO	RT	8N	83W	3					1976	O
	CDOW	26535	Wolverine Creek - one mile upstream from confluence with South Fork of Elk River		CO	RT	9N	83W	28	9,400				1976	O
	CDOW	20177	Elk River #2 above Hinman park, near South Fork confluence		CO	RT	9N	83W	27					1976	O
	CDOW	20189	North Fork Elk River - 1/2 mile above confluence with Elk River		CO	RT	9N	84W	2					1976	O
0.1	USGS	404620106462200	North Fork Elk River near Hinman Park	404620/ 1064622	CO	RT	9N	84W	2	8,000			1975-1976		ST
	CDOW	25052	English Creek below USFS Road 433		CO	RT	10N	84N	35					1976	O
	CDOW	26030	West Fork North Fork Elk River - confluence with North Fork of Elk River		CO	RT	10N	84W	35	8,160				1976	O
	CDOW	26030	West Fork North Fork Elk River - headwaters at the last Beaver Pond		CO	RT	10N	84W	34	8,180				1976	O
	CDOW	26193	Lost Dog Creek - below USFS Pond 433		CO	RT	10N	84W	26					1976	O
	CDOW	26193	Lost Dog Creek above Road 43 in Section 24		CO	RT	11N	84W	24					1976	O
	CDOW	25040	Stevens Creek just above confluence with North Fork of Elk River		CO	RT	10N	84W	11	8,600				1976	O
	CDOW	25040	Stevens Creek - headwaters		CO	RT	10N	84W	2	9,390				1976	O
	CDOW	20189	North Fork Elk River - just above confluence with Stevens Creek		CO	RT	10N	84W	11	8,600				1976	O
	CDOW	20189	North Fork Elk River - Swampy Meadows 1.5 mile north of Big Agnes Mountain		CO	RT	10N	83W	24	9,400				1976	O
	CDOW	25901	Agnes Creek - confluence with North Fork of Elk River		CO	RT	10N	84W	12	8,680				1976	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	25901	Agnes Creek - 1.3 mile		CO	RT	10N	83W	16	9,000				1976	O
	CDOW	22424	Trail Creek just above confluence with North Fork Elk River		CO	RT	10N	84W	14	8,600				1976	O
	CDOW	22424	Trail Creek - 1.3 miles southeast of Dome Peak in Section 3		CO	RT	11N	84W	34	9,390				1976	O
	CDOW	20468	Gilpin Creek - confluence with Elk River (Middle Fork) fished to Gilpin Lake		CO	RT	9N	83W	3	8,400				1976	O
	CDOW	21185	Little Cottonwood Creek on forest 1/2 mile below Freeman Reservoir		CO	RT	9N	90W	29					1980	O
	CDOW	20204	Middle Fork Elk River 1 mile below confluence with Gold and Gilpin Creeks		CO	RT	9N	83W	4	8,100				1976	O
	CDOW	20470	Gold Creek above confluence with Middle Fork		CO	RT	9N	83W	3	8,400				1976	O
	CDOW	20470	Gold Creek-Entire Fork without Gold Lake		CO	RT	9N	82W	6	10,200				1976	O
	CDOW	20468	Gilpin Creek - Gilpin Lake		CO	RT	10N	83W	36	10,330				1976	O
			YAMPA RIVER BASIN (continued)												
	USGS	402902106580000	Yampa River at Elk River Junction near Milner	402902/ 1065800	CO	RT	6N	85W	18	6,530			1975-1976		ST
	CDOW	22905	Yampa River No. 3 - Mt. Harris Station		CO	RT	6N	85W	18	6,650				1976	O
	Eddy 1976	YM-6	Yampa River upstream from Elk River confluence near Milner	402932/ 1065689	CO	RT	6N	85W	8					1975	O
	Eddy 1976	YM-7	Yampa River downstream from Elk River confluence near Milner	402902/ 1065800	CO	RT	6N	85W	18					1975	O
	USGS	402932106564900	Yampa River above Elk Creek near Milner	402932/ 1065649	CO	RT	6N	85W	8	6,550			1975-1976		ST
1.8	USGS	402836106550100	Cow Creek near Steamboat Springs	402836/ 1065501	CO	RT	6N	85W	15	6,660			1981-1982		ST
0.8	USGS	403017106524900	Sleepy Bear Trailer Park Package Plant	403017/ 1065249	CO	RT	6N	85W	3	6,600			1975-1976		ST
	USGS	403002106545500	Yampa River below Steamboat II Sewage Plant	403002/ 1065455	CO	RT	6N	85W	3	6,560			1975-1976		ST
	Eddy 1976	YM-5	Yampa River downstream from Steamboat II near Steamboat Springs	403002/ 1065455	CO	RT	6N	85W	3					1975	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	403017106525800	Yampa River below KOA Campgrounds near Steamboat Springs	403017/ 1065258	CO	RT	6N	85W	2	6,610			1975-1976		ST
	Eddy 1976	YM-4	Yampa River downstream from campgrounds near Steamboat Springs	403017/ 1065258	CO	RT	6N	85W	2					1975	O
	USGS	403015106523000	Yampa River 0.5 miles downstream below Steamboat Springs	403015/ 1065230	CO	RT	6N	85W	1	6,630			1976		ST
	Eddy 1976	YM-3	Yampa River downstream from treatment plant	402958/ 1065152	CO	RT	6N	85W	1					1975	O
	CDOW	22917	Yampa River No. 4 - Werner Ranch 6 miles south of Steamboat		CO	RT	6N	85W	1	6,650				1976	O
	USGS	402934106505400	Yampa River above sewage plant below Steamboat	402934/ 1065054	CO	RT	6N	84W	7	6,660			1975-1976		ST
	Eddy 1976	YM-2	Yampa River upstream from Steamboat Springs sewage treatment plant	402934/ 1065054	CO	RT	6N	84W	7					1975	O
	Klein 1957		Yampa River two and one half miles west of Steamboat Springs (400 feet)		CO	RT	6N	85W						1955	O
	USGS	402921106502700	Yampa River below Steamboat Springs	402921/ 1065027	CO	RT	6N	84W	8	6,680			1949		ST
0.0	USGS	402920106501900	Soda Creek near mouth at Steamboat Springs	402920/ 1065019	CO	RT	6N	84W	8	6,685			1975-1976		ST
	CDOW	22070	Soda Creek in Steamboat Springs		CO	RT	6N	84W	8	6,700				1976	O
	CDOW	27688	Gunn Creek - just below Road 323		CO	RT	7N	84W	32					1977	O
	CDOW	22070	Soda Creek - below Dry Lakes Campground		CO	RT	7N	84W	28					1976	O
	CDOW	26561	South Fork Soda Creek above confluence with Soda Creek		CO	RT	7N	84W	25					1976	O
	USGS	402944106495900	Butcherknife Creek near mouth at Steamboat Springs	402944/ 1064959	CO	RT	6N	84W	9	6,840			1975-1976		ST
	USGS	09239500	Yampa River at Steamboat Springs	402901/ 1064954	CO	RT	6N	84W	17	6,695	604	1904-[1]	1950-		W/ST
	Eddy 1976	YM-1	Yampa River at Steamboat Springs gaging station 09239500	402901/ 1064954	CO	RT	6N	84W	17					1975	O
0.1	USGS	402857106494000	Spring Creek near mouth at Steamboat Springs	402857/ 1064940	CO	RT	6N	84W	16	6,760			1975-1976		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	22121	Spring Creek - 1/2 mile below reservoir and 1/4 mile above Yampa River		CO	RT	6N	84W	17					1976	O
1.8	USGS	09239400	Spring Creek near Steamboat Springs	402936/ 1064817	CO	RT	6N	84W	10	7,020		1965-1972	1965-1972		W/ST
0.4	USGS	09239000	Fish Creek near Steamboat Springs	402755/ 1064915	CO	RT	6N	84W	31	6,780		1918-1920	1947-1976		W/ST
2.5	USGS	09238900	Fish Creek at Upper Station near Steamboat Springs	402830/ 1064711	CO	RT	6N	84W	14/ 15	7,160		1965-1972	1982-		W/ST
	CDOW	20292	Fish Creek-above confluence with Yampa River and below US Highway 40		CO	RT	6N	84W	20	6,700				1976	O
	CDOW	20292	Fish Creek-below confluence with North Fork and Fish Creek Falls		CO	RT	6N	84W	14	8,000				1976	O
	CDOW	26547	North Fork Fish Creek - one mile below confluence with Middle Fork Fish Creek		CO	RT	6N	84W	14					1976	O
	CDOW	26547	North Fork Fish Creek - 200 yards above confluence with Fish Creek and one mile below Buffalo Pass		CO	RT	7N	83W	34					1976	O
	CDOW	26078	Middle Fork Fish Creek - Junction of Dinosaur Lake Trail with stream		CO	RT	6N	83W	10					1976	O
	CDOW	26078	Middle Fork Fish Creek - 300 yards upstream from confluence with North Fork of Fish Creek		CO	RT	6N	83W	8					1976	O
	CDOW	25064	Granite Creek - above Road 310		CO	RT	6N	83W	15					1976	O
	Ames 1977	Y1	Yampa River upstream and southwest of Steamboat Springs - upstream from bridge which crosses Highway 40	SD1	CO	RT	6N	84W	20					1975	O
	Eddy 1976	YM-0	Yampa River downstream from Oak Creek near Steamboat Springs	402544/ 1064936	CO	RT	6N	84W	32					1975	O
	Eddy 1976	YM-0-1	Yampa River upstream from Mt. Werner sewage disposal ponds	SD1	CO	RT								1975	O
	USGS	402737106493700	Yampa River below Walton Creek	402737/ 1064937	CO	RT	6N	84W	20	6,730			1975-1976		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
0.5	USGS	402720106481500	Burgess Creek below ski area near Steamboat	402720/ 1064815	CO	RT	6N	84W	28	6,800			1975-1976		ST
	USGS	402745106473600	Burgess Creek tributary below ski area near Steamboat Springs	402745/ 1064736	CO	RT	6N	84W	27	7,120			1976		ST
	CDOW	25975	Burgess Creek - 3/4 mile above village		CO	RT	5N	84W	28					1976	O
0.3	USGS	402700106485400	Walton Creek near mouth at US 40 Bridge	402700/ 1064854	CO	RT	6N	84W	28	6,740			1975		ST
	Klein 1957		Walton Creek at highway bridge		CO	RT	6N	84W	28	6,740				1955	O
	Klein 1957		Walton Creek, about 1 mile above the highway		CO	RT	6N	84W	33					1955	O
0.8	USGS	402600106473600	Priest Creek below ski area near Steamboat Springs	402600/ 1064736	CO	RT	6N	84W	34	7,080			1976		ST
	CDOW	22638	Middle Walton Creek - above Highway 40		CO	RT	5N	84W	16					1981	O
	CDOW	22652	South Walton Creek - above Highway 40		CO	RT	5N	84W	16					1981	O
3.3	USGS	09238500	Walton Creek near Steamboat Springs	402429/ 1064711	CO	RT	5N	84W	11	7,040		1920-I	1950-		W/ST
	CDOW	28298	Bear Creek up from Walton Creek 100 feet		CO	RT	5N	84W	11					1976	O
	CDOW	26383	Storm King Creek above confluence with Walton Creek		CO	RT	5N	84W	11	6,850				1976	O
	CDOW	22626	Walton Creek - 1/4 mile above confluence with Fishhook		CO	RT	5N	83W	3					1976	O
	CDOW	22626	Walton Creek - Walton Creek Campground		CO	RT	5N	83W	18					1976	O
	CDOW	25038	Fishhook Creek - just above Walton Creek		CO	RT	5N	83W	8					1976	O
	CDOW	20292	Fish Creek - 1/2 mile above Fish Creek Falls		CO	RT	6N	84W	14					1976	O
	CDOW	26181	Long Park Creek - confluence with Fishhook Creek		CO	RT	5N	83W	2					1976	O
	CDOW	26181	Long park Creek - bend in stream from E to S one mile west of Lost Lake		CO	RT	6N	83W	26					1976	O
	CDOW	25038	Fishhook Creek - above		CO	RT	6N	83W	36					1976	O
	USGS	09238300	North Fork Walton Creek near Rabbit Ears Pass	402344/ 1063857	CO	GR	5N	83W				1972-1975	1975-1976		W/ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	402544106493300	Yampa River below Oak Creek near Steamboat Springs	402544/ 1064936	CO	RT	5N	84W	5	6,780			1975-1976		ST
	USGS	402356106503000	Oak Creek near Steamboat Springs	402356/ 1065030	CO	RT	5N	84W	8	6,810			1975		ST
	CDOW	21408	Oak Creek No. 1 - 1.5 miles above town of Oak Creek		CO	RT	5N	84W	5	6,770				1976	0
	USGS	402113106553400	Oak Creek below Haybro	402113/ 1065534	CO	RT	5N	85W	33	7,050			1972		ST
	Wentz 1974	835	Oak Creek Below Haybro		CO	RT	5N	85W						1972	0
	CDOH	000153	Oak Creek below town of Oak Creek	401954/ 1065736	CO	RT	4N	85W	8	7,180			1979-		ST
	USGS	401741106574600	Oak Creek above Routt	401741/ 1065746	CO	RT	4N	85W	30	7,320			1972-1976		ST
	Wentz 1974	835B	Oak Creek drain near Oak Creek	401729/ 1065754	CO	RT	4N	85W						1972	0
	USGS	401725106575600	Oak Creek above Oak Creek drain near Oak Creek	401725/ 1065756	CO	RT	4N	85W	30	7,340			1972-1976		ST
	USGS	401643106575400	Oak Creek at Oak Creek	401643/ 1065754	CO	RT	4N	85W	31	7,380			1972		ST
	USGS	09238000	Oak Creek near Oak Creek	401438/ 1070053	CO	RT	3N	86W	11	7,760		1952-1957	1975-1981		W/ST
	CDOW	21408	Oak Creek No. 1 - five miles above town of Oak Creek		CO	RT	3N	86W	20	8,000				1976	0
	CDOW	21408	Oak Creek No. 2 - intersection with USFS Road 950		CO	RB	3N	86W	20	8,020				1976	0
	Pittsburg and Midway 1980	1	Oak Creek, upstream from Edna Coal Mine loadout		CO	RT	4N	85W	19					1979	0
	Pittsburg and Midway 1980	2	Oak Creek, 1.8 miles below Edna Coal Mine loadout		CO	RT	4N	85W						1979	0
	USGS	402356106500000	Yampa River above Oak Creek near Steamboat Springs	402356/ 1065000	CO	RT	5N	84W	8	6,800			1975-1976		ST
	CDOH	000088	Yampa above Oak Creek confluence	402300/ 1064900	CO	RT	5N	84W	20	6,810			1970-		ST
	USGS	402230106493000	Yampa River near Sidney	402230/ 1064930	CO	RT	5N	84W	21	6,820			1949-1950		ST
0.6	USGS	402056106471600	Harrison Creek at mouth near Blacktail Mountain	402056/ 1064716	CO	RT	5N	84W	34	6,960			1975-1976		ST
	CDOW	20583	Harrison Creek-confluence with Yampa River		CO	RT	5N	84W	34					1976	0

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	20583	Harrison Creek-below confluence		CO	RT	4N	83W	25	9,750				1976	O
	CDOW	22917	Yampa River No. 4-below Service Creek		CO	RT	5N	84W	33	6,900				1976	O
	CDOW	22985	Green Creek above confluence		CO	RT	4N	84W	9	7,000				1980	O
	CDOW	22985	Green Creek in Upper Half		CO	RT	4N	83W	21	9,400				1980	O
0.2	USGS	09237800	Service Creek near Oak Creek	401745/ 1064803	CO	RT	4N	84W	27	7,000					ST
	CDOW	21903	Service Creek-Rocky areas above gaging station		CO	RT	4N	84W	27	7,400				1976	O
	CDOW	26775	North Fork Service Creek near confluence		CO	RT	4N	83W	36					1976	O
	CDOW	26698	South Fork Service Creek near confluence		CO	RT	3N	83W	1					1976	O
	CDOW	21903	Service Creek - near headwaters		CO	RT	3N	82W	7	9,300				1976	O
	CDOW		Green Creek		CO	RT	4N	83W	4					1980	O
	CDOW	22929	Yampa River		CO	RT	5N	84W	33					1976	O
	Klein 1957		Yampa River, lower end of Yellow Jacket Canyon		CO	RT								1955	O
	CDOW	21294	Morrison Creek above Silver Creek confluence		CO	RT	4N	84W	28					1976	O
	CDOW	26333	Silver Creek 100 yards downstream from where USFS Trail 1106 crosses stream in Section 20		CO	RT	3N	84W	20	8,690				1976	O
	CDOW	21294	Morrison Creek - USFS area 1.5 mile above Muddy Creek confluence		CO	RT	2N	83W	21	8,400				1976	O
	CDOW	21109	Muddy Creek - 200 yards above confluence with Lynx Pass Road 270		CO	RT	3N	84W	36					1980	O
	CDOW	26232	North Fork Morrison Creek - above Morrison Creek Road		CO	RT	2N	83W	17					1976	O
	USGS	401708106495900	Yampa River near Oak Creek	401708/ 1064959	CO	RT	4N	84W	29	7,100			1957-1958		ST
	CDOW	21307	Little Morrison Creek - by bridge on Little Morrison Creek		CO	RT	4N	84W	31					1976	O
	Klein 1957		Little Morrison Creek, approximately 1 mile above Yampa		CO	RT	4N	85W	32					1955	O
0.6	USGS	401634106502200	Little Morrison Creek near Stagecoach	401634/ 1065022	CO	RT	4N	84W	32	7,170			1975-1976		ST

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	USGS	401418106562200	Yampa River at Phippsburg	401418/ 1065622	CO	RT	3N	85W	16	7,000			1975-1976		ST
	Wentz 1974	836	Hunt Creek at mouth at Phippsburg		CO	RT	3N	85W						1972	O
	CDOW	20658	Hunt Creek - 1/4 mile above Yampa River		CO	RT	3N	85W	16	7,300				1976	O
	CDOW	20684	South Hunt Creek-confluence with Hunt Creek		CO	RT	3N	85W	31	7,720				1980	O
	CDOW	22676	Watson Creek above confluence with Yampa River		CO	RT	3N	85W	34	7,600				1976	O
	CDOW	26016	Chimney Creek-one mile up from Finger Rock Road		CO	RT	2N	85W	23	7,900				1976	O
	CDOW	19578	Coal Creek - below East and West Forks		CO	RT	1N	86W	15					1976	O
	CDOW	21511	Phillips Creek-upstream from Eagle Rock Road Section 27		CO	RT	2N	85W	27	7,600				1976	O
	CDOW	19580	East Coal Creek - from irrigation ditch at Bear River upstream three miles to end of USFS Road 306		CO	GA	1N	86W	16					1976	O
	CDOW	19592	West Coal Creek - Middle of section where Jeep Road crosses creek		CO	GA	1N	96W	9					1976	O
	CDOW	21212	Bear River - just inside USFS Boundary		CO	RT	2N	85W	11					1976	O
	USGS	401048106544800	Yampa River below Yampa	401048/ 1065448	CO	RB	3N	85W	34	7,690			1975		ST
	CDOW	22929	Yampa River - 3 miles below town of Yampa		CO	RT	2N	85W	11					1976	O
	Klein 1957		Yampa River above town of Yampa	SDI	CO	RT								1955	O
	Klein 1957		Yampa River - lower stillwaters	SDI	CO	RT								1955	O
	USFS	11057703	Bear River #3 10 miles southwest of Yampa	400400/ 1070200	CO	GA	1N	86W	16	9,500			1974-1979		ST
	CDOW	21224	Bear River in flats of Yamcolo Lake site		CO	GA	1N	86W	16					1976	O
	USFS	11057702	Bear River #2 13 miles southwest of Yampa	400300/ 1070400	CO	GA	1N	86W	20	9,700			1974-1975		ST
	USGS	09236000	Bear River near Toponas	400238/ 1070418	CO	GA	1N	86W	20	9,700	23	1939-1944	1975		W/ST
	USFS	11057701	Bear River #1	400200/ 1070700	CO	GA	1N	86W	19	9,760			1975		ST
	CDOW	21236	Bear River No. 3		CO	GA	1N	86W	20	9,680				1976	O

(continued)

APPENDIX A (continued)

River Mile[1]	Reporting Agency Citation[2]	Reporting Agency Station Number	Station Name	Latitude/ Longitude[3]	St.[4]	Cty.[5]	T	R	S[6]	Altitude (feet)	Drainage Area (sq. mi.)	Period of Data Collection[7] Hydrology	Water Quality	Aquatic Life	Source[8]
	CDOW	21248	Bear River-above Stillwater Reservoir		CO	GA	1N	87W	34					1976	O
	CDOW	21248	Bear River-area of Mosquito Lake		CO	GA	1N	87W	4					1976	O
	CDOW	21527	Wheeler Creek - above lake		CO	RT	2N	85W	11					1976	O
	Klein 1957		Phillips Creek, approximately 1 mile above Yampa (600 ft.)		CO	RT	2N	85W	14					1955	O
	USGS	400759106532500	Phillips Creek near Yampa	400759/ 1065325	CO	RT	2N	85W	2	3	7,930			1975	ST

1. River miles (rm) were measured from the stream mouth in an upstream direction.

2. Reporting Agency
   - CDOH = Colorado Department of Health
   - CDOW = Colorado Division of Wildlife
   - EPA = Environmental Protection Agency
   - USGS = United States Geological Survey
   - WGFD = Wyoming Game and Fish Department
   - USFS = United States Forest Service
   - CSU = Colorado State University

3. Latitude/Longitude
   - SDI = Station description insufficient

4. State
   - CO = Colorado
   - WY = Wyoming

5. County
   - CA = Carbon
   - GA = Garfield
   - MF = Moffat
   - RB = Rio Blanco
   - RT = Routt
   - SW = Sweetwater

6. T = Township
   R = Range
   S = Section

7. Period of Data Collection
   No end date indicates the station was operating at the time of this report.
   - I = Interruption in period of data collection

8. W = Watstore
   - ST = Storet
   - O = Other citation

APPENDIX B
HYDROLOGY SUMMARY TABLES

Appendix B contains, in tabular form, the hydrology data obtained from WATSTORE. The parameters selected to represent the hydrologic characteristics of the respective basins include: mean annual discharge, maximum mean annual discharge, minimum mean annual discharge, seven day-ten year low flow, flow duration, mean monthly flow, maximum mean monthly flow, minimum mean monthly flow, and predicted flood flow for the 2, 5, 10, 25, 50 and 100 year recurrence interval events. The period of record summarized for each station location is for the total period of record available with a few exceptions. When data were missing as part of the annual streamflow record, or if the data were too variable, those water years were omitted from the data summary by the USGS program. In addition, the period of record evaluated for the Green River was from 1964 to present to account for the effect of the Flaming Gorge Reservoir on streamflow. The flood flow analyses have been reported using two methods: the Water Resources Council (WRC) method (Interagency Committee on Water Data, 1982) which relies on regionally adjusted skew factors, and the USGS method of evaluation of the systematic record (systematic) using exclusively site specific data.

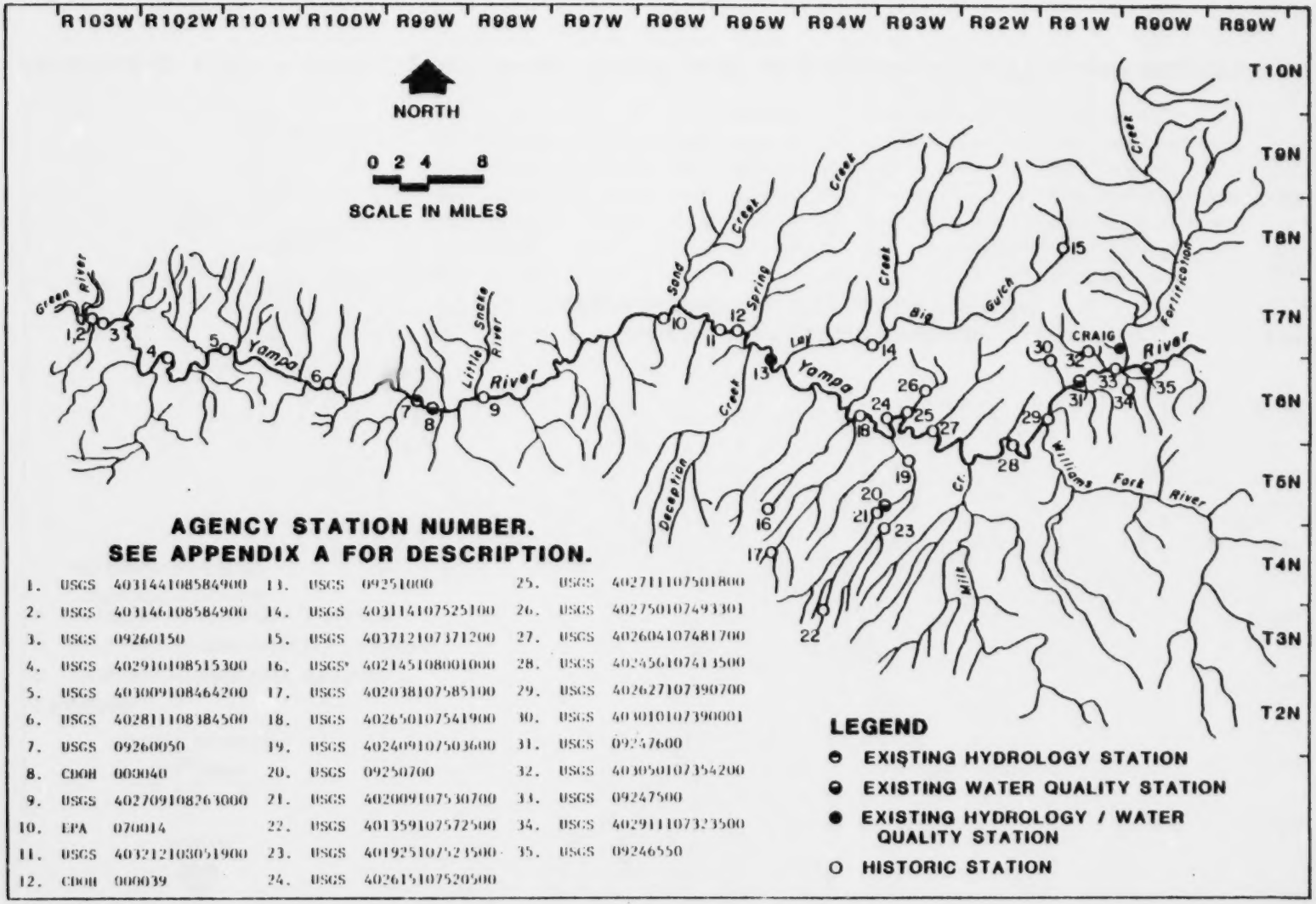
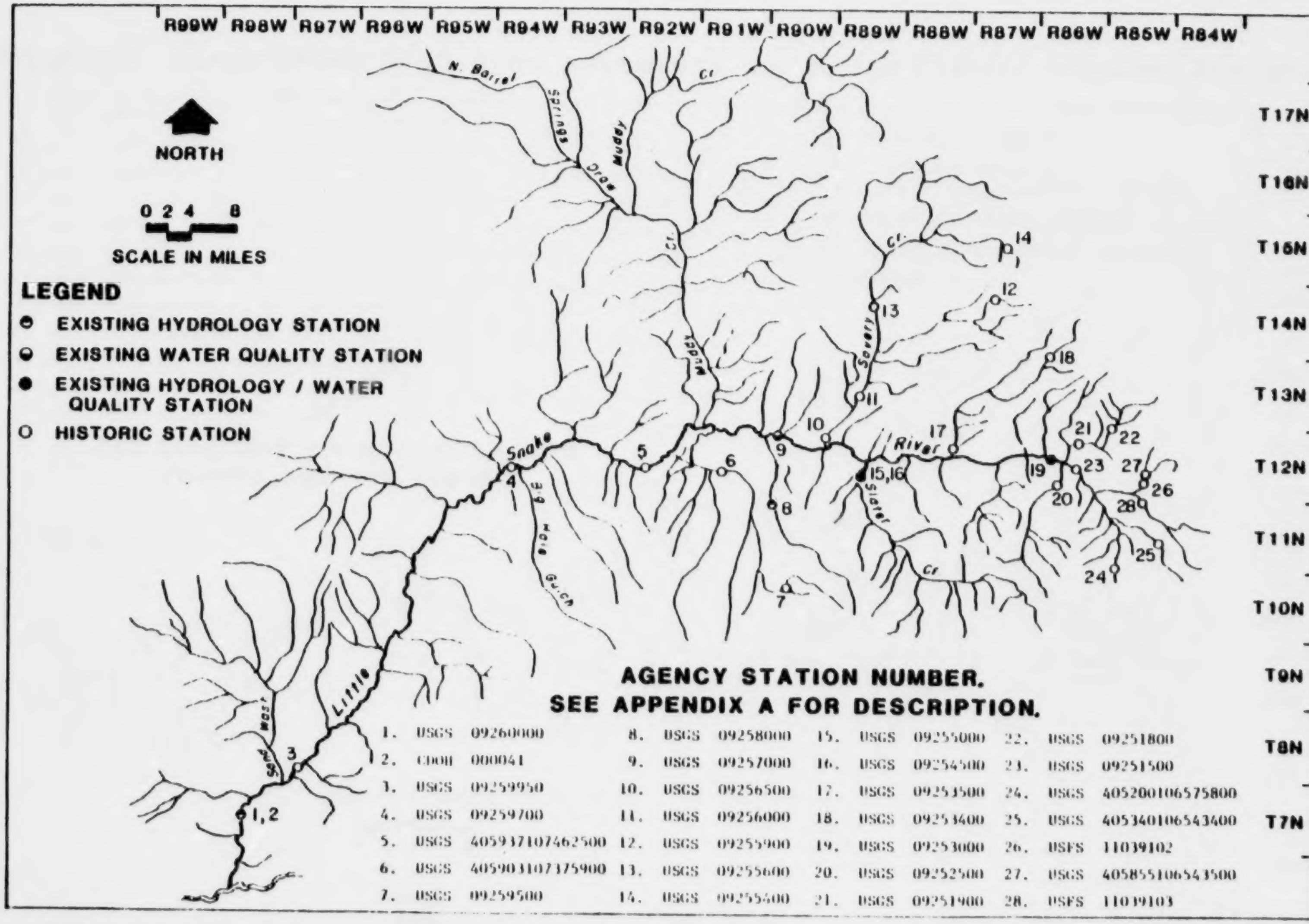


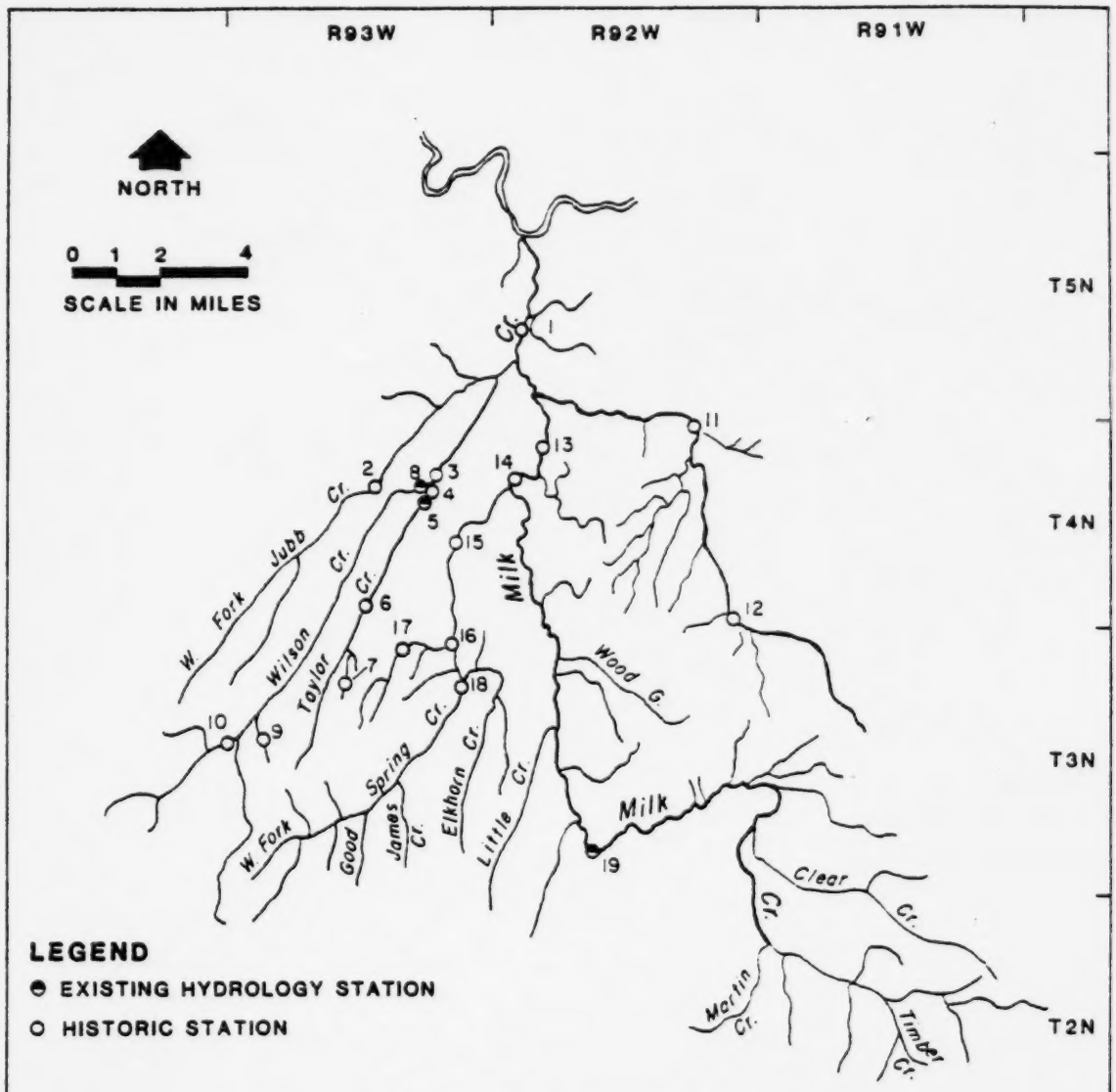
FIGURE B-1. LOWER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



AGENCY STATION NUMBER.
SEE APPENDIX A FOR DESCRIPTION.

1.	USGS	09260000	8.	USGS	09258000	15.	USGS	09255000	22.	USGS	09251800
2.	CDOH	000041	9.	USGS	09257000	16.	USGS	09254500	23.	USGS	09251500
3.	USGS	09259950	10.	USGS	09256500	17.	USGS	09253500	24.	USGS	405200106575800
4.	USGS	09259700	11.	USGS	09256000	18.	USGS	09253400	25.	USGS	405340106543400
5.	USGS	405937107462500	12.	USGS	09255900	19.	USGS	09253000	26.	USFS	11039102
6.	USGS	405903107375900	13.	USGS	09255600	20.	USGS	09252500	27.	USGS	405855106543500
7.	USGS	09259500	14.	USGS	09255400	21.	USGS	09251900	28.	USFS	11039103

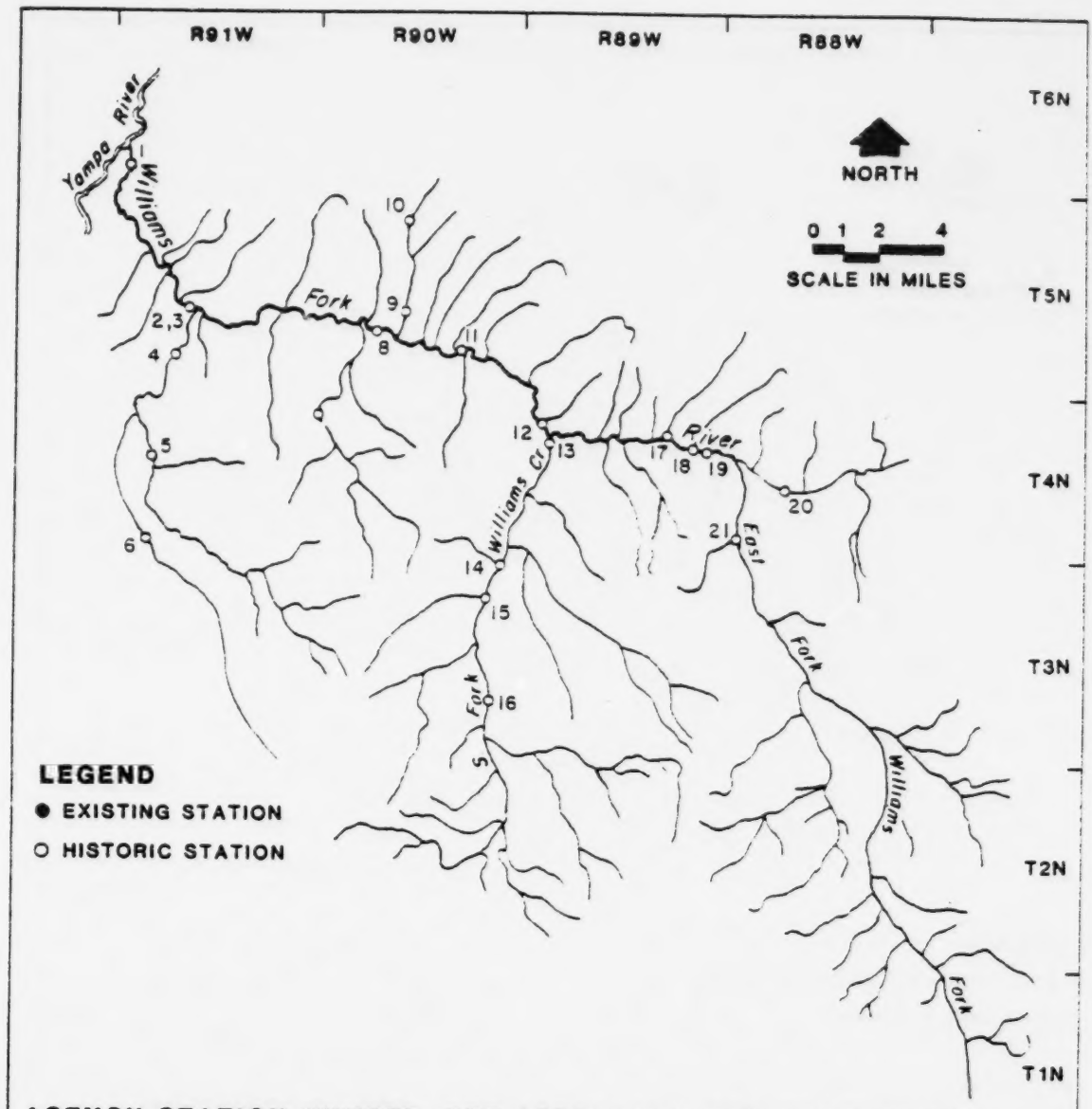
FIGURE B-2. LITTLE SNAKE RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



AGENCY STATION NUMBER. SEE APPENDIX A FOR DESCRIPTION.

1.	USGS 402154107453100	8.	USGS 09250507	14.	USGS 09250500
2.	USGS 09250610	9.	USGS 401348107520200	15.	USGS 09250400
3.	USGS 09250600	10.	USGS 401348107530200	16.	USGS 401459107470800
4.	USGS 401851107475700	11.	USGS 402005107411900	17.	USGS 401542107481300
5.	USGS 09250510	12.	USGS 401601107395300	18.	USGS 401544107471800
6.	USGS 401623107493400	13.	USGS 401948107445600	19.	USGS 09250000
7.	USGS 401452107500600				

FIGURE B-3. MILK CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



AGENCY STATION NUMBER. SEE APPENDIX A FOR DESCRIPTION.

1.	USGS 09249750	8.	USGS 402152107301300	15.	USGS 401530107262300
2.	USGS 09249500	9.	USGS 402205107293701	16.	USGS 09249200
3.	USGS 402221107365200	10.	USGS 402445107293101	17.	USGS 401913107204100
4.	USGS 09249700	11.	USGS 402127107273501	18.	USGS 09248500
5.	USGS 401829107375600	12.	USGS 402042107252101	19.	USGS 09249000
6.	USGS 401601107375400	13.	USGS 401857107243500	20.	USGS 401747107161600
7.	USGS 401944107322900	14.	USGS 401546107260700	21.	USGS 09248600

FIGURE B-4. WILLIAMS FORK RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

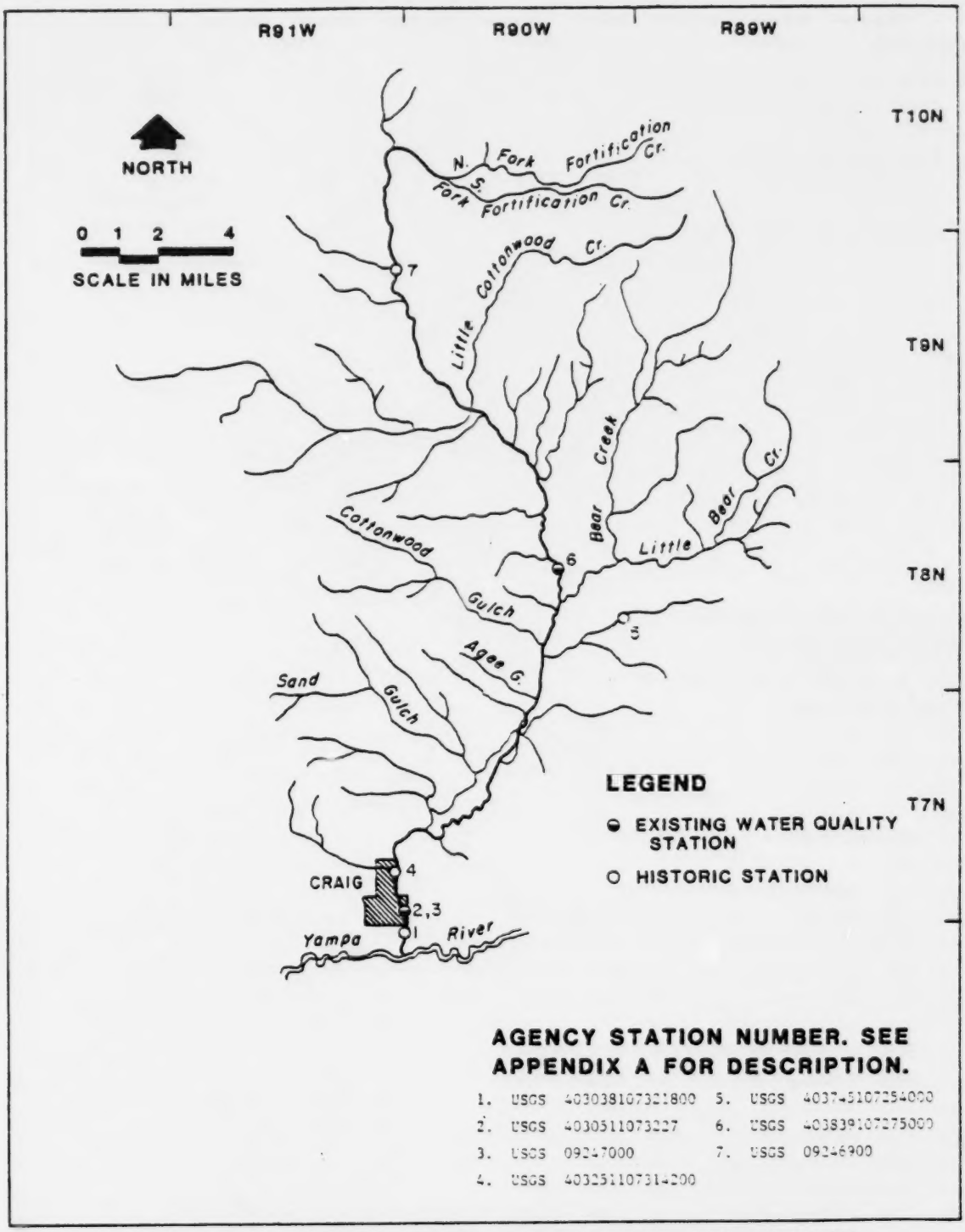


FIGURE B-5. FORTIFICATION CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

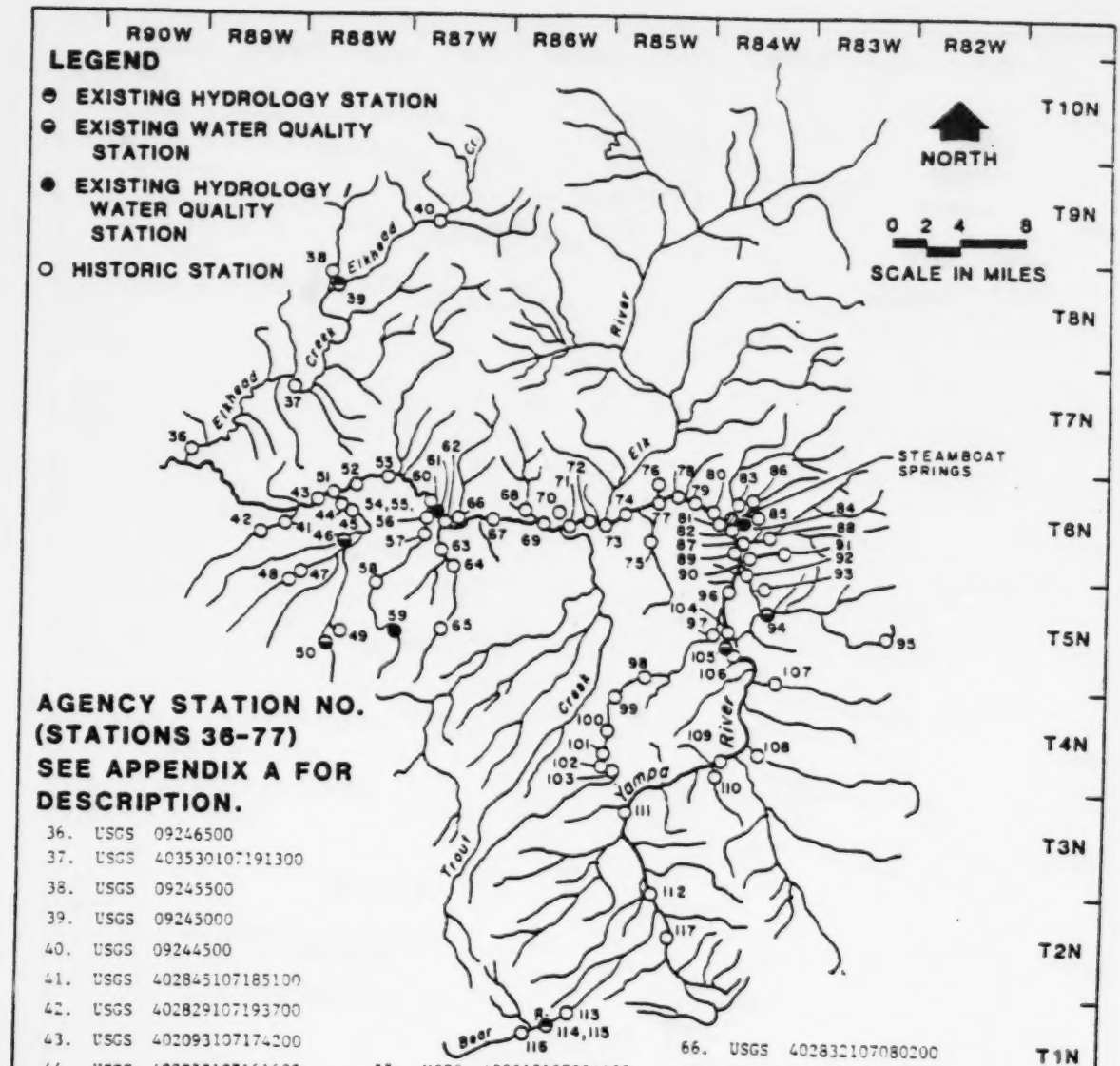
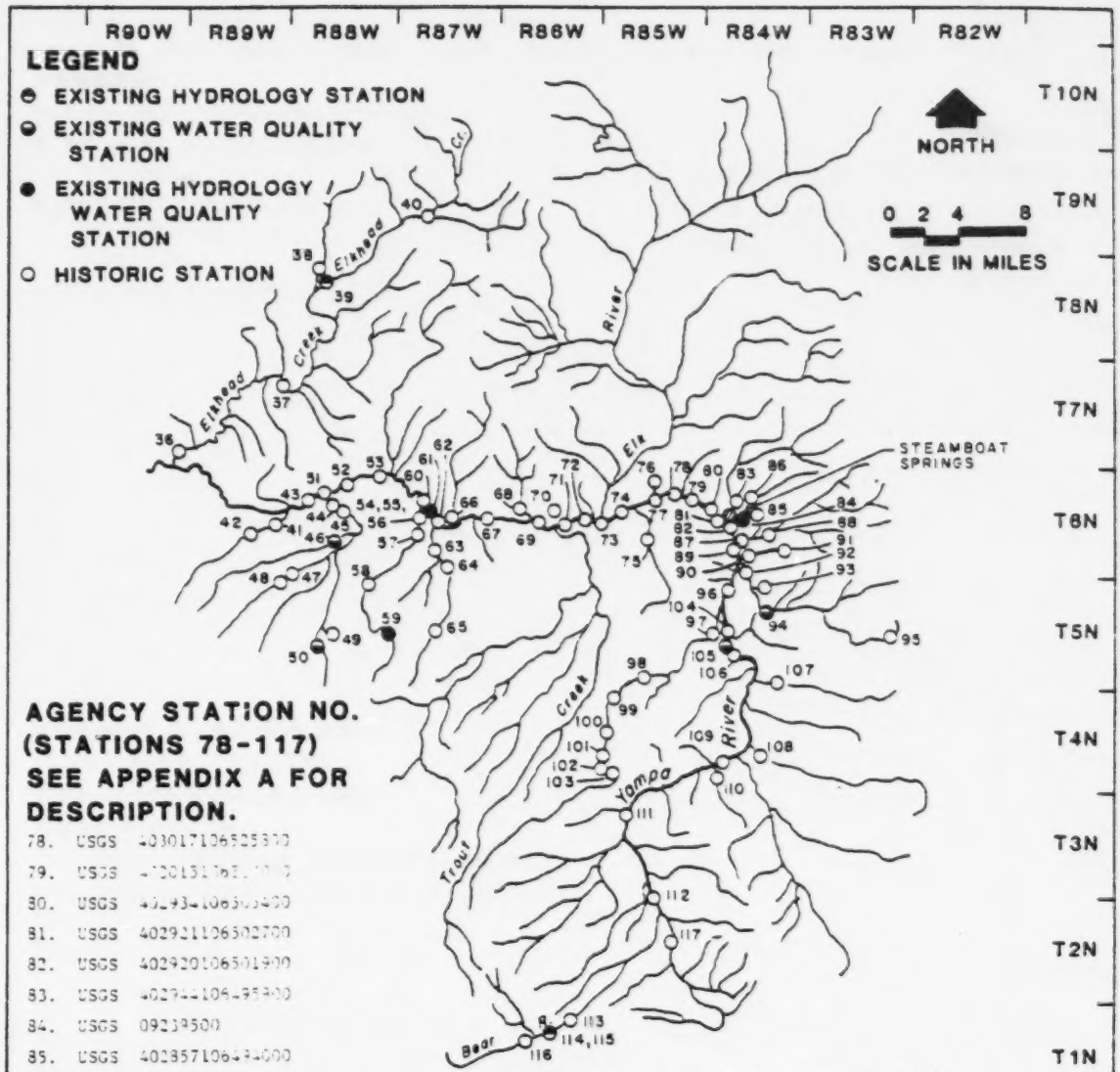


FIGURE B-6. UPPER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



78. USGS 403017106525300
79. USGS 4030[illegible]
80. USGS 40[illegible]
81. USGS 402921106502700
82. USGS 402920106501900
83. USGS 402[illegible]
84. USGS 09239500
85. USGS 402857106434000
86. USGS 09239400
87. USGS 09239000
88. USGS 09238900
89. USGS 402737106493700
90. USGS 402720106481500
91. USGS 402[illegible]
92. USGS 402700106485400
93. USGS 402600106473600
94. USGS 09238500
95. USGS 09238300
96. USGS 402[illegible]
97. USGS 402356106503000
98. USGS 402113106553400
99. CDOH 000153
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103. USGS 09238000
104. USGS 402356106500000
105. CDOH 000088
106. USGS 402230106493000
107. USGS 402056106471600
108. USGS 09237500
109. USGS 401708106495800
110. USGS 401634106502200
111. USGS 401[illegible]
112. USGS 401048106544300
113. USFS 11057703
114. USGS 11057702
115. USGS 09236000
116. USFS 11057701
117. USGS 400759106532500

FIGURE 8-7. UPPER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

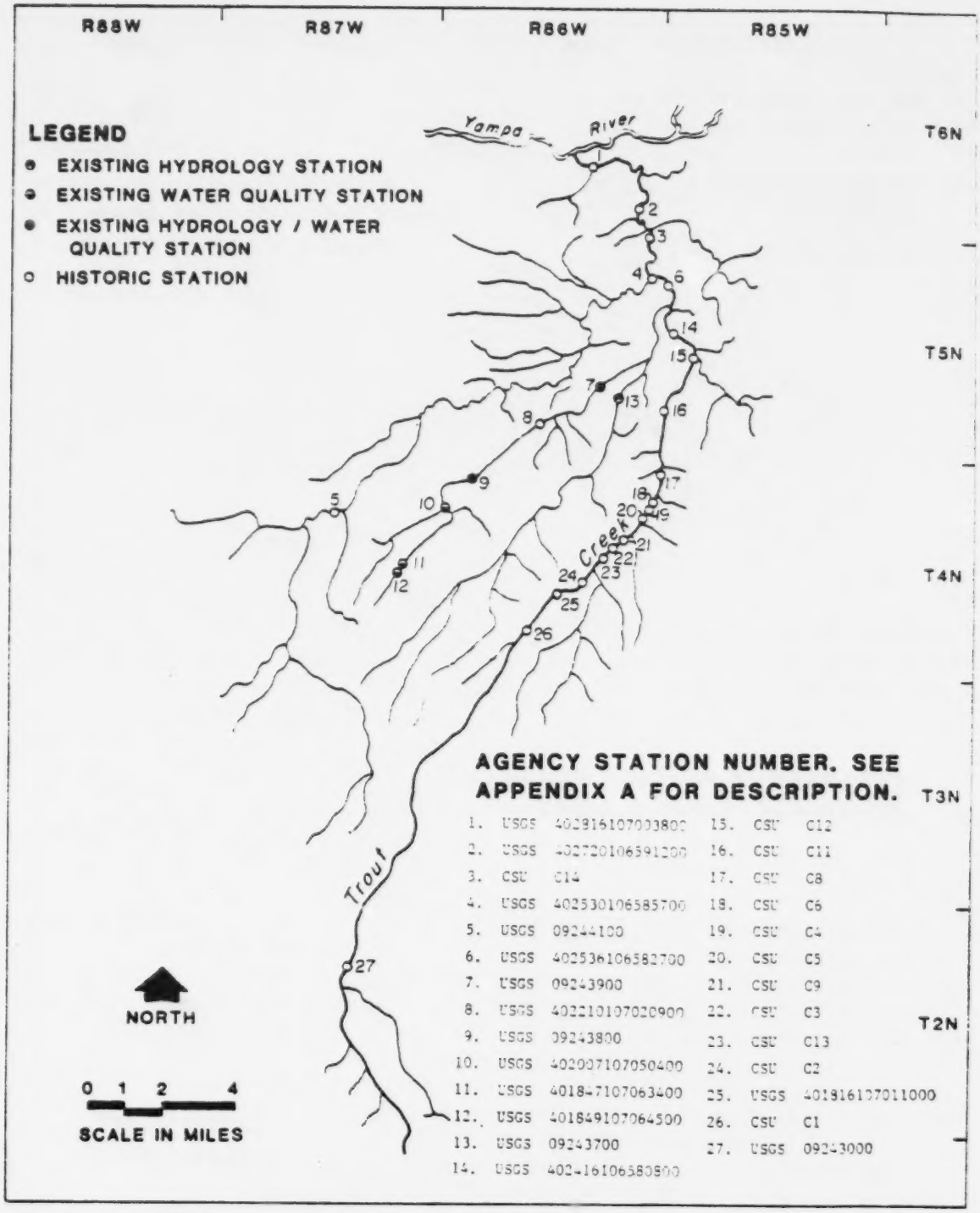


FIGURE B-8. TROUT CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

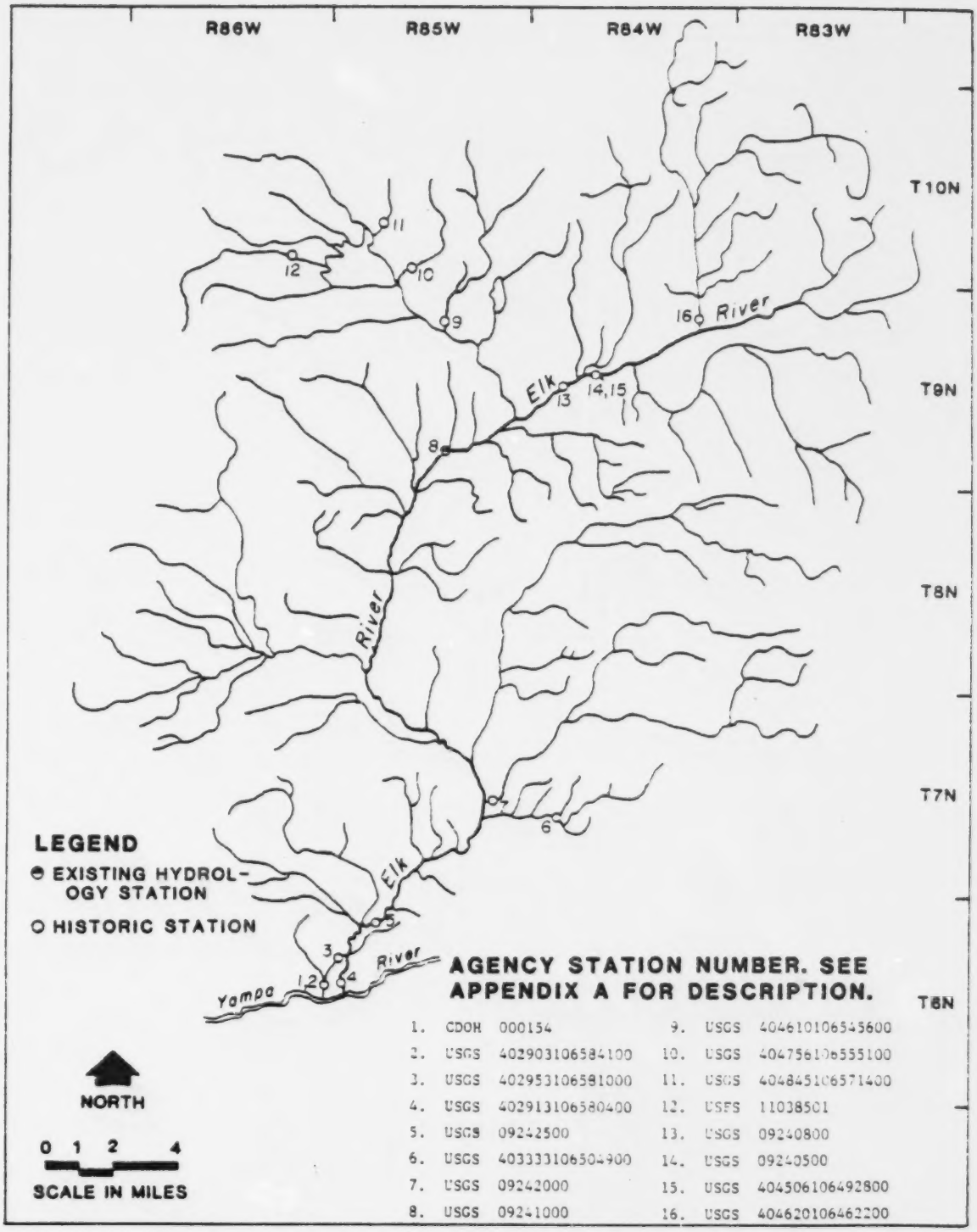


FIGURE B-9. ELK RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

Basin: Green River
Station Number: 09234500
Station Name: Green River near Greendale, Utah
Analyzed Period of Record: 1964-1983*
Mean Annual Discharge: 2168 c.f.s.
Maximum Mean Annual Discharge: 4270 c.f.s.
Minimum Mean Annual Discharge: 1155 c.f.s.
Low Flow Q_{7-10}: 552.20 c.f.s

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	747.0
90	885.0
75	1230.0
70	1380.0
50	2030.0
25	2860.0
10	3670.0

Flood Event:

Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
2	4796.1	4329.1
5	5956.5	5102.8
10	6681.9	6218.0
25	7562.5	8517.4
50	8197.9	11081.5
100	8818.9	14626.6

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	2221	2196	1758	1837	2042	2360	2602	2397	2178	1996	2105	2315
Maximum Mean Flow	3578	3954	3818	3420	4212	7961	10130	5056	3729	3911	3655	3626
Minimum Mean Flow	903	773	599	587	1045	1105	474	497	734	128	312	743

*Note: Flaming Gorge Reservoir has an effect on streamflow and flood peaks at this site since 1964.

Basin: Bear River
Station Number: 09236000
Station Name: Bear River near Toponas, Colorado
Analyzed Period of Record: 1954-1965, 1967-1983
Mean Annual Discharge: 39.9 c.f.s.
Maximum Mean Annual Discharge: 55.7 c.f.s.
Minimum Mean Annual Discharge: 20.0 c.f.s.
Low Flow Q_{7-10}: 8.05 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
95	11.3	2	192.7	189.3
90	13.0	5	262.1	260.2
75	16.1	10	309.0	311.7
70	16.9	25	369.6	382.4
50	21.5	50	415.6	439.2
25	44.0	100	462.4	499.5
10	106.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	15	15	15	18	49	123	111	42	31	23	19	17
Maximum Mean Flow	28	24	19	35	78	173	246	89	55	52	32	29
Minimum Mean Flow	9	8	8	12	33	60	21	17	11	6	10	9

*Note: There is an unspecified but reported effect of regulation on flood peaks at this site.

Basin: Bear River
Station Number: 09236500
Station Name: Bear River near Yampa, Colorado
Analyzed Period of Record: 1941 - 1944
Mean Annual Discharge: 41.6 c.f.s.
Maximum Mean Annual Discharge: 44.6 c.f.s.
Minimum Mean Annual Discharge: 36.5 c.f.s.
Low Flow Q_{7-10}: 15.77 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	16.7
90	17.5
75	19.7
70	20.6
50	27.5
25	42.4
10	106

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	19	18	19	24	77	121	79	38	29	27	24	22
Maximum Mean Flow	26	20	21	36	103	132	93	49	32	33	34	27
Minimum Mean Flow	16	16	17	18	38	113	42	27	22	19	18	18

Basin: Yampa River
Station Number: 09237500
Station Name: Yampa River near Oak Creek, Colorado
Analyzed Period of Record: 1941-1944, 1957-1972
Mean Annual Discharge: 86.1 c.f.s.
Maximum Mean Annual Discharge: 160.0 c.f.s.
Minimum Mean Annual Discharge: 48.6 c.f.s.
Low Flow Q_{7-10}: 18.77 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
95	31.1	2	471.5	459.9
90	35.5	5	754.0	747.6
75	44.2	10	962.5	976.5
70	46.9	25	1247.9	1311.5
50	59.6	50	1475.0	1595.9
25	92.3	100	1713.9	1911.1
10	166			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	45	45	65	155	181	139	97	81	56	64	59	47
Maximum Mean Flow	63	62	111	453	427	444	414	196	125	111	90	68
Minimum Mean Flow	22	33	36	67	34	40	32	29	22	30	39	29

*Note: There is an unspecified but reported effect of regulation on flood peaks at this site.

Basin: Service Creek
Station Number: 09237800
Station Name: Service Creek near Oak Creek, Colorado
Analyzed Period of Record: 1967 - 1973
Mean Annual Discharge: 45.2 c.f.s.
Maximum Mean Annual Discharge: 60.4 c.f.s.
Minimum Mean Annual Discharge: 26.7 c.f.s.
Low Flow Q_{7-10}: 2.37 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	3.1
90	3.5
75	4.3
70	4.5
50	6.2
25	23.1
10	158.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	587.8	605.1
5	781.6	780.2
10	892.1	864.2
25	1014.8	944.1
50	1095.9	989.5
100	1169.5	1025.7

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	4	4	6	37	228	208	25	7	5	7	5	5
Maximum Mean Flow	5	5	11	67	315	341	38	11	6	8	8	7
Minimum Mean Flow	3	3	5	14	162	42	7	3	3	4	3	3

Basin: Oak Creek
Station Number: 09238000
Station Name: Oak Creek near Oak Creek, Colorado
Analyzed Period of Record: 1954 - 1957
Mean Annual Discharge: 8.4 c.f.s.
Maximum Mean Annual Discharge: 15.3 c.f.s.
Minimum Mean Annual Discharge: 5.1 c.f.s.
Low Flow Q_{7-10}: 1.59 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	2.0	2	57.3	59.6
90	2.4	5	103.7	103.8
75	2.9	10	137.5	132.4
70	3.3	25	182.2	166.1
50	4.0	50	216.1	189.0
25	8.3	100	250.2	210.0
10	18.8			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	3	3	3	9	28	22	10	7	4	4	4	3
Maximum Mean Flow	4	4	4	13	56	61	21	10	6	7	7	4
Minimum Mean Flow	2	2	3	6	11	9	4	3	3	2	3	2

Basin: Walton Creek
Station Number: 09238300
Station Name: North Fork Walton Creek near Rabbit Ears Pass, Colorado
Analyzed Period of Record: 1973 - 1976
Mean Annual Discharge: 2.07 c.f.s.
Maximum Mean Annual Discharge: 2.51 c.f.s.
Minimum Mean Annual Discharge: 1.61 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	.10	2	39.6	41.5
90	.13	5	53.6	53.4
75	.18	10	61.9	58.7
70	.20	25	71.2	63.4
50	.26	50	77.6	65.9
25	.78	100	83.4	67.8
10	7.70			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.20	0.15	0.18	0.46	7.46	13.3	1.8	0.39	0.27	0.31	0.22	0.17
Maximum Mean Flow	0.28	0.21	0.28	0.66	9.97	18.10	2.71	0.48	0.29	0.43	0.29	0.22
Minimum Mean Flow	0.16	0.10	0.10	0.26	5.50	10.40	1.23	0.34	0.23	0.21	0.18	0.12

Basin: Walton Creek
Station Number: 09238350
Station Name: Fishhook Creek near Rabbit Ears Pass, Colorado
Analyzed Period of Record: 1973 - 1976
Mean Annual Discharge: 15.8
Maximum Mean Annual Discharge: 17.1
Minimum Mean Annual Discharge: 14.3
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	.7	2	215.1	211.0
90	1.0	5	232.9	230.4
75	1.4	10	242.7	244.1
70	1.5	25	253.5	262.2
50	2.0	50	260.8	276.1
25	6.7	100	267.4	290.3
10	63.1			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	1.3	1.2	1.3	2.0	34.2	99.4	37.5	4.1	1.7	2.6	2.4	1.4
Maximum Mean Flow	1.5	1.5	2.0	2.6	57.3	113.0	66.9	5.4	1.9	4.6	3.2	1.9
Minimum Mean Flow	1.1	0.9	0.5	1.6	14.7	90.4	21.6	3.3	1.3	1.4	1.5	0.9

Basin: Walton Creek
Station Number: 09238500
Station Name: Walton Creek near Steamboat Springs, Colorado
Analyzed Period of Record: 1967 - 1973
Mean Annual Discharge: 85.2 c.f.s.
Maximum Mean Annual Discharge: 123 c.f.s.
Minimum Mean Annual Discharge: 52 c.f.s.
Low Flow Q_{7-10}: 6.03 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	7.9	2	1367.6	1348.7
90	9.1	5	1807.6	1799.6
75	11.0	10	2086.7	2104.5
70	11.5	25	2427.9	2497.8
50	14.5	50	2675.0	2797.0
25	38.8	100	2916.9	3101.6
10	278.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	10	10	12	33	251	540	111	20	13	18	14	11
Maximum Mean Flow	12	12	15	63	377	876	342	36	17	24	17	13
Minimum Mean Flow	7	5	10	17	128	109	18	10	7	11	9	9

Basin: Fish Creek
Station Number: 09238900
Station Name: Fish Creek at upper station near Steamboat Springs, Colorado
Analyzed Period of Record: 1968 - 1972
Mean Annual Discharge: 71 c.f.s.
Maximum Mean Annual Discharge: 80 c.f.s.
Minimum Mean Annual Discharge: 61 c.f.s.
Low Flow Q_{7-10}: 4.42 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	4.8
90	5.6
75	7.6
70	8.1
50	11.7
25	35.0
10	267.0

Flood Event:

Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
2	889.9	882.5
5	1013.5	1011.0
10	1082.3	1088.1
25	1159.1	1179.2
50	1210.4	1243.3
100	1257.7	1305.0

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	8	7	9	31	186	446	120	12	8	14	12	9
Maximum Mean Flow	11	9	13	54	358	567	263	20	12	28	20	12
Minimum Mean Flow	5	5	7	8	86	272	29	1	3	6	6	6

*Note: There is an unspecified but reported effect of regulation on flood peaks at this site.

Basin: Spring Creek
Station Number: 09239400
Station Name: Spring Creek near Steamboat Springs, Colorado
Analyzed Period of Record: 1967 - 1972
Mean Annual Discharge: 9.4 c.f.s.
Maximum Mean Annual Discharge: 12 c.f.s.
Minimum Mean Annual Discharge: 6 c.f.s.
Low Flow Q_{7-10}: 0.09 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	.23	2	93.5	93.0
90	.48	5	118.9	118.7
75	.92	10	133.8	134.4
70	.97	25	151.1	152.8
50	1.30	50	163.0	165.9
25	5.80	100	174.2	178.3
10	35.40			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	1.0	1.0	2.0	12.0	45.0	43.0	4.0	1.0	0.4	1.0	1.0	1.0
Maximum Mean Flow	1.0	1.0	3.0	19.0	63.0	78.0	7.0	1.0	1.0	1.0	2.0	1.0
Minimum Mean Flow	1.0	1.0	1.0	7.0	35.0	9.0	0.4	0.2	0.2	1.0	1.0	1.0

Basin: Yampa River
Station Number: 09239500
Station Name: Yampa River at Steamboat Springs, Colorado
Analyzed Period of Record: 1906, 1911 - 1983
Mean Annual Discharge: 468 c.f.s.
Maximum Mean Annual Discharge: 740 c.f.s.
Minimum Mean Annual Discharge: 169 c.f.s.
Low Flow Q_{7-10}: 30.18 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	63.0
90	74.9
75	97.0
70	104.0
50	137.0
25	369.0
10	1550.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	3680.3	3747.8
5	4620.9	4677.4
10	5147.6	5121.6
25	5729.2	5546.3
50	6113.2	5789.5
100	6462.3	5985.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	99	101	166	666	1737	1858	365	151	104	132	123	103
Maximum Mean Flow	160	165	433	1675	3109	3771	1684	358	238	357	195	161
Minimum Mean Flow	45	50	74	270	702	141	16	41	20	50	69	57

Basin: Elk River
Station Number: 09240500
Station Name: Elk River at Hinman Park, Colorado
Analyzed Period of Record: 1914 - 1918
Mean Annual Discharge: 198 c.f.s.
Maximum Mean Annual Discharge: 272 c.f.s.
Minimum Mean Annual Discharge: 142 c.f.s.
Low Flow Q_{7-10}: 34.66 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	33.7	2	1468.3	1458.0
90	35.4	5	1860.6	1857.7
75	44.3	10	2092.5	2103.3
70	46.7	25	2360.6	2396.5
50	72.9	50	2545.3	2604.7
25	167.0	100	2719.3	2805.5
10	603.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	40	37	40	150	303	842	340	108	71	88	59	46
Maximum Mean Flow	43	41	50	168	689	1366	765	164	77	123	67	55
Minimum Mean Flow	35	35	35	130	302	499	142	69	65	50	48	40

Basin: Elk River
Station Number: 09240800
Station Name: South Fork Elk River near Clark, Colorado
Analyzed Period of Record: 1968 - 1973
Mean Annual Discharge: 69 c.f.s.
Maximum Mean Annual Discharge: 79 c.f.s.
Minimum Mean Annual Discharge: 56 c.f.s.
Low Flow Q_{7-10}: 9.12 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	9.0
90	9.9
75	11.8
70	12.4
50	17.0
25	50.3
10	252.0

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	758.2	757.2
5	872.1	871.9
10	934.3	935.2
25	1002.2	1005.0
50	1046.9	1051.3
100	1087.6	1093.7

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	11	10	10	23	157	382	143	31	20	20	14	12
Maximum Mean Flow	13	12	12	41	251	451	188	42	27	26	18	15
Minimum Mean Flow	8	8	9	12	87	282	52	18	15	13	9	9

Basin: Elk River
Station Number: 09241000
Station Name: Elk River at Clark, Colorado
Analyzed Period of Record: 1912-1916, 1918, 1920, 1932-1983
Mean Annual Discharge: 330 c.f.s.
Maximum Mean Annual Discharge: 556 c.f.s.
Minimum Mean Annual Discharge: 121 c.f.s.
Low Flow Q_{7-10}: 29.85 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
95	38.0	2	2615.3	2632.4
90	43.8	5	3207.8	3231.8
75	56.5	10	3533.9	3534.9
70	61.2	25	3889.8	3841.7
50	83.1	50	4122.6	4028.2
25	270.0	100	4332.9	4186.6
10	1180.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	56	56	71	272	1182	1412	478	136	82	80	67	61
Maximum Mean Flow	110	106	195	840	2356	2559	1314	320	183	232	128	103
Minimum Mean Flow	30	28	36	75	377	255	61	40	37	36	34	27

*Note: There is an unspecified but reported effect of regulation on the 1912 flood peak.

Basin: Elk River
Station Number: 09242500
Station Name: Elk River near Trull, Colorado
Analyzed Period of Record: 1906, 1911-1927
Mean Annual Discharge: 593 c.f.s.
Maximum Mean Annual Discharge: 886 c.f.s.
Minimum Mean Annual Discharge: 422 c.f.s.
Low Flow Q_{7-10}: 52.90 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	72.2
90	81.3
75	96.7
70	103.0
50	143.0
25	645.0
10	2010.0

Flood Event:

Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
2	4128.8	4100.9
5	4811.7	4802.7
10	5199.4	5222.9
25	5636.7	5717.2
50	5932.5	6064.4
100	6207.6	6397.0

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	95	98	192	746	2231	2338	710	175	106	134	119	97
Maximum Mean Flow	120	145	320	1214	3977	3824	1940	445	173	424	234	125
Minimum Mean Flow	60	63	95	415	1180	1139	203	77	3	67	77	69

*Note: There is an unspecified but reported effect of regulation on flood peaks at this site.

Basin: Trout Creek
Station Number: 09243700
Station Name: Middle Creek near Oak Creek, CO
Analyzed Period of Record: 1976-1983
Mean Annual Discharge: 3.18 c.f.s.
Maximum Mean Annual Discharge: 7.22 c.f.s.
Minimum Mean Annual Discharge: .50 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.00
90	0.00
75	0.07
70	0.27
50	0.54
25	1.70
10	7.60

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	25.4	25.5
5	78.4	78.4
10	135.8	133.5
25	237.1	235.5
50	334.6	331.2
100	451.5	445.3

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.30	0.45	1.14	8.44	21.30	4.07	1.54	0.48	0.21	0.22	0.39	0.34
Maximum Mean Flow	0.60	0.75	1.91	16.10	58.60	8.52	3.33	1.38	1.12	0.59	0.72	0.62
Minimum Mean Flow	0.00	0.00	0.71	1.01	1.00	1.01	0.54	0.00	0.00	0.00	0.00	0.00

Basin: Trout Creek
Station Number: 09243800
Station Name: Foidel Creek near Oak Creek, CO
Analyzed Period of Record: 1976-1983
Mean Annual Discharge: .79 c.f.s.
Maximum Mean Annual Discharge: 1.99 c.f.s.
Minimum Mean Annual Discharge: .02 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.00
90	0.00
75	0.01
70	0.01
50	0.01
25	0.37
10	1.50

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	7.4	8.7
5	55.5	55.5
10	144.3	120.9
25	370.9	243.8
50	656.1	359.3
100	1068.2	488.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.07	0.15	0.66	4.86	3.36	0.44	0.15	0.05	0.03	0.03	0.02	0.08
Maximum Mean Flow	0.48	0.47	1.47	12.20	9.10	0.89	0.50	0.32	0.17	0.10	0.14	0.48
Minimum Mean Flow	0.00	0.00	0.00	0.11	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.00

Basin: Trout Creek
Station Number: 09243900
Station Name: Foidel creek at mouth, near Oak Creek, CO
Analyzed Period of Record: 1976-1983
Mean Annual Discharge: 2.05 c.f.s.
Maximum Mean Annual Discharge: 4.34 c.f.s.
Minimum Mean Annual Discharge: 0.07 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s)
95	0.00	2	34.2	31.2
90	0.00	5	56.9	69.0
75	0.01	10	74.5	90.1
70	0.01	25	99.4	109.7
50	0.12	50	119.8	119.8
25	1.70	100	142.0	126.9
10	5.50			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.25	0.68	3.22	10.20	6.27	1.56	0.86	0.58	0.09	0.07	0.33	0.31
Maximum Mean Flow	1.58	2.00	7.05	27.20	15.30	4.71	2.77	2.84	0.46	0.29	1.99	1.68
Minimum Mean Flow	0.00	0.00	0.39	0.41	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Basin: Trout Creek
Station Number: 09244100
Station Name: Fish Creek near Milner, Colorado
Analyzed Period of Record: 1957 - 1973
Mean Annual Discharge: 12.8 c.f.s.
Maximum Mean Annual Discharge: 23 c.f.s.
Minimum Mean Annual Discharge: 6 c.f.s.
Low Flow Q_{7-10}: 0.64 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	1.5	2	160.8	164.9
90	2.1	5	245.7	245.6
75	3.3	10	298.7	290.8
70	3.7	25	360.8	339.0
50	5.0	50	403.6	369.2
25	8.6	100	443.5	395.2
10	33.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	5	5	8	28	60	23	5	3	3	4	5	5
Maximum Mean Flow	7	8	17	87	115	104	16	8	6	12	8	8
Minimum Mean Flow	3	4	3	17	14	2	1	1	1	2	3	3

Basin: Yampa River
Station Number: 09244300
Station Name: Grassy Creek near Mt. Harris, CO
Analyzed Period of Record: 1959-1966
Mean Annual Discharge: 1.44 c.f.s.
Maximum Mean Annual Discharge: 3.53 c.f.s.
Minimum Mean Annual Discharge: .20 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.01
90	0.02
75	0.04
70	0.05
50	0.09
25	0.22
10	1.30

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	101.7	111.9
5	230.5	228.5
10	336.3	301.9
25	485.2	381.4
50	603.3	430.3
100	724.8	470.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.02	0.13	2.97	12.20	1.38	0.28	0.07	0.03	0.11	0.03	0.05	0.03
Maximum Mean Flow	0.10	0.59	12.30	36.30	4.52	0.95	0.35	0.14	0.73	0.08	0.19	0.10
Minimum Mean Flow	0.00	0.00	0.00	0.97	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Basin: Yampa River
Station Number: 09244400
Station Name: Yampa River near Hayden, Colorado
Analyzed Period of Record: 1967 - 1972
Mean Annual Discharge: 1077 c.f.s.
Maximum Mean Annual Discharge: 1393 c.f.s.
Minimum Mean Annual Discharge: 700 c.f.s.
Low Flow Q_{7-10}: 81.97 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	161
90	180
75	216
70	228
50	291
25	1040
10	3570

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	7251.2	7449.8
5	8815.5	8786.4
10	9646.2	9346.2
25	10526.6	9825.8
50	11086.8	10072.4
100	11581.6	10254.7

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	213	206	382	1495	3773	4376	1093	330	244	317	264	218
Maximum Mean Flow	262	264	642	2551	5542	6110	1639	529	356	452	346	248
Minimum Mean Flow	176	161	223	931	2788	1627	287	188	98	200	188	165

Basin: Gibraltar Canal
Station Number: 09244405
Station Name: Gibraltar Canal near Hayden, Colorado
Analyzed Period of Record: 1971 - 1973
Mean Annual Discharge: 55.8 c.f.s.
Maximum Mean Annual Discharge: 73.5 c.f.s.
Minimum Mean Annual Discharge: 41.8 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	8.2	2	Insufficient data	
90	14.8	5		
75	24.5	10		
70	26.6	25		
50	35.2	50		
25	57.0	100		
10	132.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	29.5	27.4	33.6	40.5	120.0	195.0	57.5	33.6	38.3	36.4	29.9	28.2
Maximum Mean Flow	34.7	35.8	49.8	65.6	41.1	238.0	92.5	36.3	47.5	60.5	53.3	35.2
Minimum Mean Flow	21.9	19.9	16.4	0.0	211.0	163.0	29.7	29.2	31.3	19.3	12.1	17.2

Basin: Yampa River
Station Number: 09244410
Station Name: Yampa River, below diversion, near Hayden, Colorado
Analyzed Period of Record: 1967 - 1983
Mean Annual Discharge: 1041 c.f.s.
Maximum Mean Annual Discharge: 1426 c.f.s.
Minimum Mean Annual Discharge: 327 c.f.s.
Low Flow Q_{7-10}: 28.98 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	85.1	2	7224.8	7195.2
90	128.0	5	9912.1	9904.0
75	175.0	10	11595.2	11631.3
70	186.0	25	13620.1	13742.4
50	251.0	50	15061.3	15267.0
25	972.0	100	16450.3	16754.2
10	3650.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	176	180	294	1381	3702	4330	1292	327	167	235	215	179
Maximum Mean Flow	252	276	592	2551	6324	6810	2729	656	319	463	355	292
Minimum Mean Flow	65	76	143	622	1374	1112	84	82	40	121	111	52

Basin: Sage Creek
Station Number: 09244415
Station Name: Sage Creek above Sage Creek Reservoir near Hayden, Colorado
Analyzed Period of Record: 1981 - 1983
Mean Annual Discharge: 0.93 c.f.s.
Maximum Mean Annual Discharge: 1.19 c.f.s.
Minimum Mean Annual Discharge: 0.68 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	0.01	2	Insufficient data	
90	0.01	5		
75	0.02	10		
70	0.03	25		
50	0.08	50		
25	0.39	100		
10	3.90			

MONTHLY DISCHARGE;	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.01	0.02	0.07	2.87	4.12	1.13	0.27	0.10	0.05	0.02	0.04	0.03
Maximum Mean Flow	0.02	0.04	0.09	3.79	7.09	2.19	0.52	0.01	0.13	0.03	0.03	0.05
Minimum Mean Flow	0.01	0.01	0.05	1.95	0.51	0.27	0.07	0.22	0.00	0.01	0.03	0.01

Basin: Watering Trough Gulch
Station Number: 09244460
Station Name: Watering Trough Gulch near Hayden, Colorado
Analyzed Period of Record: 1979 - 1981
Mean Annual Discharge: 0.09 c.f.s.
Maximum Mean Annual Discharge: 0.15 c.f.s.
Minimum Mean Annual Discharge: 0.03 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.00
90	0.01
75	0.02
70	0.02
50	0.03
25	0.06
10	0.08

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.02	0.02	0.02	0.32	0.42	0.05	0.04	0.04	0.03	0.04	0.04	0.03
Maximum Mean Flow	0.04	0.03	0.03	0.61	0.83	0.10	0.05	0.05	0.05	0.06	0.06	0.06
Minimum Mean Flow	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.01	0.03	0.02	0.01

Basin: Hubberson Gulch
Station Number: 09244464
Station Name: Hubberson Gulch near Hayden, Colorado
Analyzed Period of Record: 1979 - 1981
Mean Annual Discharge: 0.60 c.f.s.
Maximum Mean Annual Discharge: 1.10 c.f.s.
Minimum Mean Annual Discharge: 0.10 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.00
90	0.01
75	0.04
70	0.05
50	0.08
25	0.20
10	0.70

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.07	0.08	0.22	3.53	2.46	0.53	0.11	0.02	0.03	0.05	0.06	0.06
Maximum Mean Flow	0.09	0.14	0.25	6.80	4.70	0.94	0.21	0.03	0.05	0.09	0.08	0.07
Minimum Mean Flow	0.05	0.02	0.19	0.26	0.22	0.11	0.05	0.01	0.01	0.00	0.03	0.05

Basin: Yampa River
Station Number: 09244470
Station Name: Stokes Gulch near Hayden, CO
Analyzed Period of Record: 1976-1981
Mean Annual Discharge: 1.66 c.f.s.
Maximum Mean Annual Discharge: 3.72 c.f.s.
Minimum Mean Annual Discharge: .00 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.00
90	0.00
75	0.00
70	0.00
50	0.01
25	0.01
10	0.36

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.00	0.00	0.31	18.60	1.24	0.02	0.00	0.00	0.00	0.00	0.00	0.00
Maximum Mean Flow	0.00	0.01	0.85	41.90	2.77	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Minimum Mean Flow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Basin: Elkhead Creek
Station Number: 09244500
Station Name: Elkhead Creek near Clark, Colorado
Analyzed Period of Record: 1960 - 1973
Mean Annual Discharge: 36 c.f.s.
Maximum Mean Annual Discharge: 53 c.f.s.
Minimum Mean Annual Discharge: 15 c.f.s.
Low Flow Q_{7-10}: 0.67 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	1.7
90	2.1
75	2.9
70	3.2
50	4.4
25	14.3
10	121.0

Flood Event:

Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s)
2	655.4	667.1
5	899.3	899.3
10	1041.7	1023.0
25	1202.6	1151.8
50	1310.2	1231.4
100	1408.8	1299.7

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	3	3	5	64	239	82	11	4	3	4	4	4
Maximum Mean Flow	5	5	9	165	358	170	20	7	7	8	8	6
Minimum Mean Flow	2	2	2	12	117	24	3	1	1	2	2	2

*Note: There is an unspecified but reported effect on the 1944 flood peak.

Basin: Elkhead Creek
Station Number: 09245000
Station Name: Elkhead Creek near Elkhead, Colorado
Analyzed Period of Record: 1954 - 1983
Mean Annual Discharge: 55 c.f.s.
Maximum Mean Annual Discharge: 89 c.f.s.
Minimum Mean Annual Discharge: 17 c.f.s.
Low Flow Q_{7-10}: 0.16 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	1.5	2	968.1	976.4
90	2.3	5	1318.0	1343.0
75	3.6	10	1536.6	1549.5
70	4.0	25	1799.2	1774.7
50	6.3	50	1985.9	1920.4
25	18.7	100	2165.8	2050.1
10	184.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	5.0	5.0	10.0	100.0	367.0	124.0	15.0	5.0	3.0	5.0	6.0	5.0
Maximum Mean Flow	11.0	13.0	35.0	316.0	625.0	357.0	50.0	14.0	8.0	11.0	11.0	13.0
Minimum Mean Flow	2.0	2.0	4.0	16.0	64.0	11.0	1.0	0.3	0.2	2.0	2.0	2.0

Basin: Yampa River
Station Number: 09246500
Station Name: Elkhead Creek near Craig, CO
Analyzed Period of Record: 1911-1918
Mean Annual Discharge: 122 c.f.s.
Maximum Mean Annual Discharge: 197 c.f.s.
Minimum Mean Annual Discharge: 74 c.f.s.
Low Flow Q_{7-10}: 0.31 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	.56	2	Insufficient data	
90	1.8	5		
75	4.4	10		
70	6.2	25		
50	7.8	50		
25	92.0	100		
10	442.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	6.0	7.0	81.0	410.0	638.0	235.0	16.0	3.0	3.0	11.0	6.0	6.0
Maximum Mean Flow	10.0	10.0	125.0	638.0	1020.0	862.0	61.0	12.0	9.0	32.0	11.0	10.0
Minimum Mean Flow	4.0	5.0	20.0	251.0	298.0	30.0	3.0	0.3	0.0	2.0	2.0	2.0

Basin: Fortification Creek
Station Number: 09246900
Station Name: Fortification Creek near Craig, CO
Analyzed Period of Record: 1956-1980
Mean Annual Discharge: 11.4 c.f.s.
Maximum Mean Annual Discharge: 18.50 c.f.s.
Minimum Mean Annual Discharge: 5.02 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	0.04	2	142.0	138.6
90	0.09	5	243.5	242.1
75	1.10	10	318.3	323.9
70	1.50	25	419.3	441.6
50	2.10	50	498.3	539.5
25	8.20	100	579.8	646.0
10	37.80			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	1.95	2.11	10.60	29.50	51.30	29.00	4.09	0.49	0.54	2.33	2.61	1.97
Maximum Mean Flow	2.40	3.50	23.19	34.00	93.10	84.70	18.39	1.81	1.13	4.27	3.70	2.60
Minimum Mean Flow	1.50	1.60	2.50	13.30	25.69	9.23	0.18	0.00	0.00	0.66	1.27	1.45

Basin: Fortification Creek
Station Number: 09247000
Station Name: Fortification Creek at Craig, Colorado
Analyzed Period of Record: 1910 - 1918 1944 - 1947
Mean Annual Discharge: 57.0 c.f.s.
Maximum Mean Annual Discharge: 115.0 c.f.s.
Minimum Mean Annual Discharge: 19.0 c.f.s.
Low Flow Q_{7-10}: Data Unavailable

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.02
90	0.05
75	0.81
70	1.80
50	6.00
25	53.00
10	210.00

Flood Event:

Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s)
2	745.3	703.4
5	803.6	870.9
10	835.8	923.5
25	871.6	956.6
50	895.5	968.7
100	917.5	975.3

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	4.92	7.39	159.0	170.0	224.0	91.2	5.68	1.88	0.86	6.56	4.54	4.93
Maximum Mean Flow	8.00	15.00	358.0	436.0	383.0	285.0	24.19	10.70	3.95	27.40	14.20	10.00
Minimum Mean Flow	0.00	1.50	8.93	33.5	38.9	1.08	0.52	0.00	0.00	0.00	0.00	0.00

*Note: There was an unspecified but reported effect of regulation on the 1917 flood peak.

Basin: Yampa River
Station Number: 09247500
Station Name: Yampa River at Craig, Colorado
Analyzed Period of Record: 1905, 1911-1916
Mean Annual Discharge: 1350 c.f.s.
Maximum Mean Annual Discharge: 1819 c.f.s.
Minimum Mean Annual Discharge: 1032 c.f.s.
Low Flow Q_{7-10}: 84.09 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	174
90	189
75	227
70	243
50	383
25	1550
10	4400

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	9057.5	9188.4
5	9850.4	9831.6
10	10246.0	10073.7
25	10650.5	10266.7
50	10901.4	10359.8
100	11119.5	10425.3

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	223	216	465	2304	5019	4676	1083	391	284	417	343	243
Maximum Mean Flow	260	260	600	3077	6795	7082	2815	998	680	754	715	350
Minimum Mean Flow	200	200	300	1599	3072	2440	237	143	124	163	200	200

Basin: Williams Fork River
Station Number: 09248500
Station Name: East Fork of Williams Fork near Willow Creek, Colorado
Analyzed Period of Record: 1945 - 1947
Mean Annual Discharge: 95 c.f.s.
Maximum Mean Annual Discharge: 132 c.f.s.
Minimum Mean Annual Discharge: 73 c.f.s.
Low Flow Q_{7-10}: 18.91 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	20.4
90	21.2
75	23.6
70	24.4
50	30.6
25	80.5
10	312.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	21	22	24	58	344	355	140	52	34	32	27	23
Maximum Mean Flow	23	23	30	111	562	471	221	72	47	36	33	26
Minimum Mean Flow	19	21	21	27	212	252	66	33	24	25	24	21

Basin: Williams Fork River
Station Number: 09248600
Station Name: East Fork of Williams Fork above Willow Creek, Colorado
Analyzed Period of Record: 1958 - 1972
Mean Annual Discharge: 107 c.f.s.
Maximum Mean Annual Discharge: 183 c.f.s.
Minimum Mean Annual Discharge: 64 c.f.s.
Low Flow Q_{7-10}: 17.06 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	19.9	2	1018.0	1018.2
90	22.5	5	1289.1	1289.2
75	27.9	10	1446.6	1446.4
70	29.7	25	1626.1	1625.5
50	37.8	50	1747.9	1747.0
25	85.3	100	1861.4	1860.0
10	332.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	26	26	29	90	382	408	128	55	41	40	33	29
Maximum Mean Flow	35	37	37	267	630	889	543	147	72	86	50	45
Minimum Mean Flow	18	16	19	37	277	106	33	22	18	20	17	18

Basin: Williams Fork River
Station Number: 09249000
Station Name: East Fork of Williams Fork near Pagoda, Colorado
Analyzed Period of Record: 1955 - 1971
Mean Annual Discharge: 113 c.f.s.
Maximum Mean Annual Discharge: 205 c.f.s.
Minimum Mean Annual Discharge: 61 c.f.s.
Low Flow Q_{7-10}: 17.41 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	21.5
90	24.2
75	28.8
70	30.4
50	39.1
25	93.0
10	352.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	930.5	920.5
5	1241.7	1237.8
10	1439.4	1449.5
25	1681.1	1719.3
50	1856.0	1922.1
100	2027.1	2126.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	29	27	32	114	422	403	123	52	39	41	36	31
Maximum Mean Flow	39	40	47	318	712	992	591	140	78	98	54	46
Minimum Mean Flow	21	18	21	45	277	102	35	24	21	22	24	20

Basin: Williams Fork River
Station Number: 09249200
Station Name: South Fork of Williams Fork near Pagoda, Colorado
Analyzed Period of Record: 1967 - 1979
Mean Annual Discharge: 42 c.f.s.
Maximum Mean Annual Discharge: 56 c.f.s.
Minimum Mean Annual Discharge: 9 c.f.s.
Low Flow Q_{7-10}: 0.27 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	2.1	2	631.9	674.8
90	3.1	5	766.8	807.1
75	4.6	10	845.8	836.0
70	5.0	25	936.7	848.7
50	6.7	50	999.3	851.8
25	17.0	100	1058.3	853.5
10	153.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	6	6	8	41	233	170	17	5	4	6	6	5
Maximum Mean Flow	7	8	13	102	383	338	45	8	6	14	10	7
Minimum Mean Flow	4	4	5	7	58	12	2	1	1	3	3	3

Basin: Williams Fork River
Station Number: 09249500
Station Name: Williams Fork at Hamilton, Colorado
Analyzed Period of Record: 1906 - 1927
Mean Annual Discharge: 218 c.f.s.
Maximum Mean Annual Discharge: 396 c.f.s.
Minimum Mean Annual Discharge: 141 c.f.s.
Low Flow Q_{7-10}: 20.50 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	28.9
90	40.3
75	50.1
70	52.9
50	69.4
25	167.0
10	717.0

Flood Event:

Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
2	1870.2	1807.7
5	2258.9	2218.7
10	2496.9	2525.8
25	2781.3	2952.9
50	2983.8	3299.8
100	3179.8	3672.1

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	48	52	84	242	920	783	186	70	56	62	61	51
Maximum Mean Flow	61	65	150	472	1343	2039	591	138	98	109	118	69
Minimum Mean Flow	20	25	30	50	435	252	45	34	21	20	18	15

*Note: There was an unspecified but reported effect of regulation on the 1917 flood peak.

Basin: Williams Fork River
Station Number: 09249700
Station Name: Morapos Creek near Hamilton, Colorado
Analyzed Period of Record: 1966 - 1967
Mean Annual Discharge: 6.31 c.f.s.
Maximum Mean Annual Discharge: 6.47 c.f.s.
Minimum Mean Annual Discharge: 6.14 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.21
90	0.53
75	0.87
70	0.94
50	1.30
25	4.20
10	22.50

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.83	0.85	1.78	14.40	34.10	15.90	2.38	0.58	0.75	1.48	1.07	1.27
Maximum Mean Flow	1.07	1.01	2.13	21.40	34.90	25.40	3.64	0.87	1.26	1.93	1.35	1.47
Minimum Mean Flow	0.59	0.68	1.44	7.40	33.20	6.49	1.13	0.28	0.24	1.03	0.78	1.06

Basin: Milk Creek
Station Number: 09250000
Station Name: Milk Creek near Thornburgh, Colorado
Analyzed Period of Record: 1954 - 1983
Mean Annual Discharge: 27 c.f.s.
Maximum Mean Annual Discharge: 62 c.f.s.
Minimum Mean Annual Discharge: 4 c.f.s.
Low Flow Q_{7-10}: 0.3 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.8
90	1.3
75	2.4
70	2.7
50	4.6
25	14.1
10	80.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	323.1	325.6
5	531.9	548.2
10	687.6	701.5
25	901.9	895.5
50	1072.9	1038.2
100	1253.1	1178.0

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	4.0	4.0	10.0	48.0	160.0	66.0	9.0	3.0	2.0	3.0	4.0	4.0
Maximum Mean Flow	10.0	10.0	31.0	144.0	328.0	285.0	33.0	7.0	7.0	10.0	15.0	9.0
Minimum Mean Flow	1.0	2.0	3.0	14.0	16.0	4.0	1.0	0.3	0.3	0.5	1.0	1.0

Basin: Milk Creek
Station Number: 09250400
Station Name: Good Spring Creek at Axial, Colorado
Analyzed Period of Record: 1975 - 1978
Mean Annual Discharge: 1.41 c.f.s.
Maximum Mean Annual Discharge: 2.38 c.f.s.
Minimum Mean Annual Discharge: 0.28 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.07
90	0.15
75	0.32
70	0.44
50	0.97
25	1.90
10	3.20

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	14.3	12.1
5	34.8	32.1
10	55.3	59.0
25	90.1	122.1
50	123.4	204.2
100	163.7	334.5

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.67	1.09	1.41	2.11	3.11	3.20	1.23	0.70	0.33	0.46	0.79	0.73
Maximum Mean Flow	1.15	2.01	2.32	3.20	6.01	6.92	2.63	1.23	0.72	0.79	1.27	1.31
Minimum Mean Flow	0.12	0.19	0.34	0.42	0.51	0.35	0.20	0.16	0.04	0.10	0.10	0.15

Basin: Milk Creek
Station Number: 09250507
Station Name: Wilson Creek above Taylor Creek near Axial, Colorado
Analyzed Period of Record: 1981 - 1983
Mean Annual Discharge: 3.53 c.f.s.
Maximum Mean Annual Discharge: 7.55 c.f.s.
Minimum Mean Annual Discharge: 0.91 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.36
90	0.42
75	0.69
70	0.81
50	1.20
25	2.00
10	6.90

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.9	1.2	1.3	2.7	17.7	10.3	2.6	1.5	1.4	0.9	0.8	0.9
Maximum Mean Flow	1.1	1.9	2.0	5.2	40.9	24.7	5.6	2.7	2.3	1.1	1.2	1.4
Minimum Mean Flow	0.4	0.8	0.8	1.4	1.6	1.1	0.7	0.4	0.4	0.7	0.5	0.4

Basin: Milk Creek
Station Number: 09250510
Station Name: Taylor Creek at mouth near Axial, CO
Analyzed Period of Record: 1975-1983
Mean Annual Discharge: 0.17 c.f.s.
Maximum Mean Annual Discharge: 0.61 c.f.s.
Minimum Mean Annual Discharge: 0.00 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s)
95	0.00	2	2.8	3.3
90	0.00	5	11.9	11.8
75	0.00	10	23.4	19.8
70	0.01	25	45.4	30.9
50	0.01	50	67.5	39.2
25	0.07	100	94.6	47.1
10	0.29			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.01	0.18	0.04	0.02	0.77	0.61	0.18	0.07	0.04	0.08	0.04	0.03
Maximum Mean Flow	0.05	1.29	0.23	0.10	2.80	2.31	0.56	0.31	0.15	0.30	0.14	0.24
Minimum Mean Flow	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Basin: Milk Creek
Station Number: 09250600
Station Name: Wilson Creek near Axial, Colorado
Analyzed Period of Record: 1976 - 1980
Mean Annual Discharge: 2 c.f.s.
Maximum Mean Annual Discharge: 4 c.f.s.
Minimum Mean Annual Discharge: 0.4 c.f.s.
Low Flow Q_{7-10}: 0.13 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	.34
90	.36
75	.42
70	.45
50	.74
25	1.60
10	4.40

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	33.1	32.8
5	57.1	72.5
10	75.7	90.7
25	102.3	104.1
50	124.1	109.5
100	147.6	112.6

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	1.0	1.0	1.0	2.0	12.0	5.0	2.0	1.0	1.0	0.5	1.0	1.0
Maximum Mean Flow	1.0	3.0	2.0	4.0	27.0	10.0	3.0	1.0	2.0	0.6	1.0	1.0
Minimum Mean Flow	0.3	0.4	0.4	1.0	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4

Basin: Milk Creek
Station Number: 09250610
Station Name: Jubb Creek near Axial, CO
Analyzed Period of Record: 1975 - 1981
Mean Annual Discharge: 0.11 c.f.s.
Maximum Mean Annual Discharge: 0.40 c.f.s.
Minimum Mean Annual Discharge: 0.00 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.00
90	0.00
75	0.01
70	0.01
50	0.02
25	0.10
10	0.21

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	2.4	2.9
5	6.9	6.6
10	11.2	8.7
25	18.0	10.6
50	23.9	11.6
100	30.3	12.3

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.00	0.10	0.04	0.09	0.31	0.33	0.15	0.08	0.07	0.06	0.03	0.03
Maximum Mean Flow	0.01	0.46	0.13	0.22	1.51	1.44	0.65	0.26	0.17	0.20	0.13	0.16
Minimum Mean Flow	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Basin: Yampa River
Station Number: 09251000
Station Name: Yampa River near Maybell, Colorado
Analyzed Period of Record: 1917 -*1983
Mean Annual Discharge: 1551 c.f.s.
Maximum Mean Annual Discharge: 2948 c.f.s.
Minimum Mean Annual Discharge: 477 c.f.s.
Low Flow Q_{7-10}: 38.16 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	129
90	174
75	252
70	275
50	404
25	1460
10	5340

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	10003.2	10085.5
5	12581.7	12691.9
10	14042.8	14049.5
25	15672.7	15453.7
50	16759.0	16323.2
100	17754.4	17072.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	267	320	657	2575	6206	5589	1416	388	237	335	337	290
Maximum Mean Flow	610	743	1900	6496	11270	12810	5819	1052	972	1001	691	624
Minimum Mean Flow	115	160	221	735	1850	548	20	26	28	117	184	137

Basin: Little Snake River
Station Number: 09251500
Station Name: Main Fork Little Snake River near Battle Creek, Colorado
Analyzed Period of Record: 1914 - 922
Mean Annual Discharge: 136 c.f.s.
Maximum Mean Annual Discharge: 218 c.f.s.
Minimum Mean Annual Discharge: 92 c.f.s.
Low Flow Q_{7-10}: 5.75 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	6.9
90	8.1
75	12.6
70	13.7
50	20.1
25	75.9
10	454.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	1744.7	1693.5
5	2749.7	2723.5
10	3470.5	3533.7
25	4431.9	4708.2
50	5179.7	5696.4
100	5951.4	6784.7

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	14	14	40	153	746	519	71	18	15	23	17	14
Maximum Mean Flow	20	20	80	253	1166	1110	253	34	22	45	30	20
Minimum Mean Flow	8	8	12	25	331	159	18	7	6	8	7	7

Basin: Little Snake River
Station Number: 09251800
Station Name: North Fork Little Snake River near Encampment, Wyoming
Analyzed Period of Record: 1957-1965
Mean Annual Discharge: 25.7 c.f.s.
Maximum Mean Annual Discharge: 34.7 c.f.s.
Minimum Mean Annual Discharge: 20.0 c.f.s.
Low Flow Q_{7-10}: 1.24 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	1.7
90	1.8
75	2.6
70	2.8
50	4.7
25	14.4
10	96.8

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	370.7	365.5
5	468.1	466.0
10	527.4	532.0
25	597.7	615.3
50	647.4	677.4
100	695.0	739.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	2.6	2.9	3.1	12.2	96.1	142.0	26.5	5.6	4.3	5.6	4.6	3.4
Maximum Mean Flow	4.4	6.7	4.5	31.4	200.0	258.0	82.8	9.1	9.1	15.3	11.0	7.1
Minimum Mean Flow	1.6	1.5	1.4	5.1	44.8	85.3	11.1	3.6	2.0	1.8	1.7	1.6

Basin: Little Snake River
Station Number: 09251900
Station Name: North Fork Little Snake River near Slater, CO
Analyzed Period of Record: 1956-1963
Mean Annual Discharge: 44.2 c.f.s.
Maximum Mean Annual Discharge: 60.1 c.f.s.
Minimum Mean Annual Discharge: 30.5 c.f.s.
Low Flow Q_{7-10}: 2.56 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	3.2	2	447.9	439.5
90	3.5	5	542.7	538.8
75	4.5	10	599.3	605.4
70	5.2	25	665.7	691.0
50	8.3	50	712.1	756.0
25	22.5	100	756.4	822.1
10	172.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	5.4	6.6	6.9	37.3	204.0	201.0	33.1	8.4	6.1	10.3	8.8	6.4
Maximum Mean Flow	11.0	19.9	15.0	91.5	300.0	397.0	114.0	15.2	11.8	21.7	18.0	14.6
Minimum Mean Flow	3.0	3.2	4.0	10.0	120.0	117.0	14.8	5.8	3.6	3.7	3.2	2.8

Basin: Little Snake River
Station Number: 09252500
Station Name: South Fork Little Snake River near Battle Creek, Colorado
Analyzed Period of Record: 1914 - 1920
Mean Annual Discharge: 31 c.f.s.
Maximum Mean Annual Discharge: 42 c.f.s.
Minimum Mean Annual Discharge: 15 c.f.s.
Low Flow Q_{7-10}: 0.07 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	1.3
90	2.2
75	5.7
70	6.4
50	10.3
25	26.0
10	86.1

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	324.3	319.9
5	544.2	542.5
10	703.8	710.9
25	917.0	944.1
50	1082.1	1131.2
100	1251.4	1328.9

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	8	8	25	62	141	76	11	5	5	8	8	8
Maximum Mean Flow	12	12	55	126	324	202	32	10	12	24	15	20
Minimum Mean Flow	4	4	8	14	61	29	3	1	1	1	1	2

Basin: Little Snake River
Station Number: 09253000
Station Name: Little Snake River near Slater, Colorado
Analyzed Period of Record: 1944-1947, 1951-1983
Mean Annual Discharge: 232 c.f.s.
Maximum Mean Annual Discharge: 386 c.f.s.
Minimum Mean Annual Discharge: 87 c.f.s.
Low Flow Q_{7-10}: 11.23 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	17.6	2	2179.5	2192.7
90	20.5	5	2863.6	2864.6
75	27.3	10	3254.6	3236.0
70	29.4	25	3690.9	3638.6
50	39.5	50	3980.7	3898.6
25	119.0	100	4245.1	4130.5
10	887.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	32	32	45	255	1072	1008	168	39	27	36	34	32
Maximum Mean Flow	75	60	93	842	2090	2231	519	97	73	92	78	59
Minimum Mean Flow	16	20	24	78	405	193	33	17	11	18	18	15

Basin: Little Snake River
Station Number: 09253400
Station Name: Battle Creek near Encampment, WY
Analyzed Period of Record: 1956-1963
Mean Annual Discharge: 27.5 c.f.s.
Maximum Mean Annual Discharge: 37.9 c.f.s.
Minimum Mean Annual Discharge: 19.4 c.f.s.
Low Flow Q_{7-10}: 1.82 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	2.2
90	2.6
75	3.5
70	3.9
50	5.5
25	14.6
10	89.6

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	325.2	305.3
5	454.9	439.0
10	544.6	554.8
25	661.9	737.9
50	752.3	905.1
100	845.0	1102.7

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	3.4	3.6	3.8	12.5	104.0	143.0	28.3	7.3	5.8	6.7	5.7	4.3
Maximum Mean Flow	5.0	6.9	5.8	34.6	184.0	266.0	101.0	13.8	9.1	14.7	12.6	7.3
Minimum Mean Flow	2.0	2.0	1.8	5.0	42.0	84.0	12.6	4.7	3.2	2.8	2.6	2.1

Basin: Little Snake River
Station Number: 09253500
Station Name: Battle Creek near Slater, CO
Analyzed Period of Record: 1943-1951
Mean Annual Discharge: 83.2 c.f.s.
Maximum Mean Annual Discharge: 109.0 c.f.s.
Minimum Mean Annual Discharge: 64.5 c.f.s.
Low Flow Q_{7-10}: 3.06 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	5.5
90	6.2
75	8.2
70	8.7
50	11.5
25	53.5
10	311.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s)	Magnitude Systematic (c.f.s.)
2	910.5	899.5
5	1034.9	1030.2
10	1106.0	1113.1
25	1186.7	1215.0
50	1241.6	1289.4
100	1293.0	1362.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	8.4	8.1	17.0	102.0	377.0	373.0	61.6	13.3	7.4	9.9	9.8	8.7
Maximum Mean Flow	9.6	9.4	40.4	191.0	498.0	541.0	145.0	36.3	13.0	15.2	12.6	10.5
Minimum Mean Flow	5.9	6.0	9.6	41.3	242.0	244.0	26.1	7.7	4.6	6.2	8.2	6.6

Basin: Little Snake River
Station Number: 09254500
Station Name: Slater Fork at Baxter Ranch near Slater, Colorado
Analyzed Period of Record: 1914 - 1920
Mean Annual Discharge: 85 c.f.s.
Maximum Mean Annual Discharge: 120 c.f.s.
Minimum Mean Annual Discharge: 61 c.f.s.
Low Flow Q_{7-10}: 3.02 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	7.6
90	12.0
75	16.8
70	17.7
50	25.3
25	66.9
10	298.0

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	610.7	590.9
5	791.2	779.6
10	907.0	920.1
25	1050.2	1116.1
50	1155.0	1276.2
100	1258.7	1448.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	17	15	39	101	335	301	55	20	18	28	27	21
Maximum Mean Flow	25	25	60	185	549	597	153	32	36	51	44	30
Minimum Mean Flow	12	10	8	8	231	67	8	3	3	11	18	15

Basin: Little Snake River
Station Number: 09255000
Station Name: Slater Fork near Slater, Colorado
Analyzed Period of Record: 1933 - 1983
Mean Annual Discharge: 76 c.f.s.
Maximum Mean Annual Discharge: 139 c.f.s.
Minimum Mean Annual Discharge: 20 c.f.s.
Low Flow Q_{7-10}: 0.63 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	4.2	2	835.7	873.5
90	7.1	5	1161.4	1212.7
75	12.5	10	1375.3	1375.3
70	13.7	25	1643.3	1526.3
50	19.2	50	1841.4	1609.2
25	42.2	100	2038.2	1673.1
10	259.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	16	17	26	110	369	257	39	9	11	18	17	16
Maximum Mean Flow	30	30	52	243	640	630	189	38	32	50	32	27
Minimum Mean Flow	8	10	13	25	46	24	1	2	3	7	8	7

Basin: Little Snake River
Station Number: 09255400
Station Name: East Fork Savery Creek near Encampment, WY
Analyzed Period of Record: 1956-1958
Mean Annual Discharge: 5.82 c.f.s.
Maximum Mean Annual Discharge: 6.22 c.f.s.
Minimum Mean Annual Discharge: 5.43 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	0.74
90	0.79
75	0.99
70	1.0
50	1.2
25	2.6
10	16.7

Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	0.9	1.0	1.1	1.8	20.2	26.4	6.2	1.7	1.2	1.4	1.1	1.0
Maximum Mean Flow	1.0	1.1	1.1	3.0	32.7	42.5	13.1	2.6	1.6	1.7	1.2	1.0
Minimum Mean Flow	0.7	0.8	1.0	1.2	7.6	17.4	2.7	1.2	0.8	1.1	1.1	0.9

Basin: Little Snake River
Station Number: 09255500
Station Name: Savery Creek at upper station, near Savery, WY
Analyzed Period of Record: 1941, 1953-1971
Mean Annual Discharge: 45.0 c.f.s.
Maximum Mean Annual Discharge: 76.1 c.f.s.
Minimum Mean Annual Discharge: 18.4 c.f.s.
Low Flow Q_{7-10}: 1.19 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	4.6	2	465.3	459.6
90	6.6	5	839.7	837.1
75	11.1	10	1133.1	1142.9
70	12.3	25	1549.4	1590.5
50	17.5	50	1889.6	1967.4
25	37.5	100	2253.6	2380.9
10	127.0			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	13.9	17.4	33.2	130.0	175.0	86.7	16.8	9.7	10.2	15.0	16.9	14.9
Maximum Mean Flow	23.0	44.5	117.0	348.0	396.0	214.0	36.2	21.9	30.1	27.3	31.0	24.4
Minimum Mean Flow	6.3	7.0	11.8	57.5	52.5	17.6	1.9	2.8	3.1	7.7	9.1	6.5

Basin: Little Snake River
Station Number: 09258000
Station Name: Willow Creek near Dixon, Wyoming
Analyzed Period of Record: 1955 - 1983
Mean Annual Discharge: 10 c.f.s.
Maximum Mean Annual Discharge: 21 c.f.s.
Minimum Mean Annual Discharge: 3 c.f.s.
Low Flow Q_{7-10}: 0.29 c.f.s.

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	1.1	2	146.9	151.9
90	1.4	5	226.1	233.5
75	2.1	10	277.2	275.9
70	2.4	25	339.1	317.4
50	3.3	50	382.9	341.1
25	9.0	100	424.8	359.9
10	32.2			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	2.0	3.0	5.0	19.0	32.0	35.0	11.0	3.0	2.0	3.0	2.0	2.0
Maximum Mean Flow	8.0	6.0	15.0	38.0	64.0	65.0	38.0	7.0	5.0	6.0	6.0	5.0
Minimum Mean Flow	0.4	0.5	2.0	5.0	7.0	5.0	3.0	0.2	0.2	1.0	1.0	1.0

Basin: Little Snake River
Station Number: 09255900
Station Name: Big Sandstone Creek near Savery, WY
Analyzed Period of Record: 1956-1958
Mean Annual Discharge: 18.4 c.f.s.
Maximum Mean Annual Discharge: 19.80 c.f.s.
Minimum Mean Annual Discharge: 17.0 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	1.6	2	Insufficient data	
90	1.8	5		
75	2.1	10		
70	2.3	25		
50	3.2	50		
25	6.2	100		
10	44.8			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	2.4	2.5	2.4	4.4	61.3	94.7	18.0	3.2	2.0	3.2	2.8	2.7
Maximum Mean Flow	3.0	3.0	2.5	7.0	87.8	149.0	40.9	4.9	2.6	4.7	3.6	3.5
Minimum Mean Flow	1.7	2.0	2.3	3.0	26.4	55.1	5.6	2.3	1.4	1.6	2.0	1.9

Basin: Little Snake River
Station Number: 09256000
Station Name: Savery Creek near Savery, WY
Analyzed Period of Record: 1942-1972
Mean Annual Discharge: 104.0 c.f.s.
Maximum Mean Annual Discharge: 207.0 c.f.s.
Minimum Mean Annual Discharge: 39.7 c.f.s.
Low Flow Q_{7-10}: 0.13 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	3.6
90	6.8
75	16.6
70	19.5
50	29.6
25	73.0
10	320.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	1169.2	1190.5
5	1652.4	1688.3
10	1948.6	1950.0
25	2296.2	2215.1
50	2537.2	2373.6
100	2764.2	2505.3

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	24.4	29.7	51.5	261.0	486.0	253.0	36.2	11.1	11.1	21.9	26.2	24.6
Maximum Mean Flow	36.0	72.3	136.0	694.0	1217.0	560.0	97.3	41.2	42.5	42.2	47.9	41.6
Minimum Mean Flow	8.7	11.3	18.4	94.0	146.0	51.1	2.5	1.4	1.0	5.4	10.5	8.9

Basin: Little Snake River
Station Number: 09256500
Station Name: Savery Creek at Savery, WY
Analyzed Period of Record: 1915-1922
Mean Annual Discharge: 151.0 c.f.s.
Maximum Mean Annual Discharge: 216.0 c.f.s.
Minimum Mean Annual Discharge: 109.0 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	2.5
90	8.6
75	24.1
70	28.2
50	41.6
25	130.0
10	482.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	Insufficient data	
5		
10		
25		
50		
100		

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	35.0	37.0	165.0	298.0	641.0	250.0	22.4	17.2	15.8	29.2	37.4	39.6
Maximum Mean Flow	40.0	45.0	309.0	507.0	1242.0	542.0	52.4	79.1	30.9	52.3	47.0	48.2
Minimum Mean Flow	25.0	30.0	50.0	170.0	223.0	94.4	1.5	0.0	0.2	17.0	31.8	25.0

Basin: Little Snake River
Station Number: 09257000
Station Name: Little Snake River near Dixon, WY
Analyzed Period of Record: 1911-1923, 1939-1971
Mean Annual Discharge: 514.0 c.f.s.
Maximum Mean Annual Discharge: 930.0 c.f.s.
Minimum Mean Annual Discharge: 212.0 c.f.s.
Low Flow Q_{7-10}: 0.78 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	3.6
90	8.3
75	52.3
70	64.0
50	104.0
25	348.0
10	1880.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	4632.8	4830.4
5	6104.9	6273.2
10	7004.0	6923.1
25	8068.1	7503.0
50	8815.7	7810.3
100	9529.8	8042.0

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	85.4	101.0	215.0	822.0	2527.0	1884.0	211.0	27.3	24.7	77.3	94.3	88.8
Maximum Mean Flow	130.0	433.0	744.0	1991.0	5698.0	4035.0	1160.0	198.0	105.0	282.0	245.0	160.0
Minimum Mean Flow	37.1	47.8	82.8	236.0	388.0	217.0	5.2	0.9	0.2	6.2	36.3	45.0

Basin: Little Snake River
Station Number: 09260000
Station Name: Little Snake River near Lily, Colorado
Analyzed Period of Record: 1923 - 1983
Mean Annual Discharge: 578 c.f.s.
Maximum Mean Annual Discharge: 1213 c.f.s.
Minimum Mean Annual Discharge: 110 c.f.s.
Low Flow Q_{7-10}: 0.26 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	1.6
90	11.3
75	54.9
70	66.5
50	124.0
25	515.0
10	2020.0

Flood Event:

Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
2	5103.0	5217.6
5	7240.9	7413.4
10	8654.6	8683.8
25	10431.8	10094.5
50	11747.7	11020.2
100	13056.3	11852.8

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	85.2	113.0	367.0	1089.0	2604.0	1928.0	301.0	68.2	53.7	108.0	112.0	94.0
Maximum Mean Flow	205.0	452.0	1260.0	3259.0	5539.0	4601.0	1330.0	534.0	314.0	385.0	363.0	244.0
Minimum Mean Flow	16.0	18.0	80.5	320.0	477.0	36.7	0.3	0.0	0.0	0.0	0.0	25.0

Basin: Yampa River
Station Number: 09260050
Station Name: Yampa River at Deerlodge Park, Colorado
Analyzed Period of Record: 1982 - 198.
Mean Annual Discharge: 3378 c.f.s.
Maximum Mean Annual Discharge: 3378 c.f.s.
Minimum Mean Annual Discharge: 3378 c.f.s.
Low Flow Q_{7-10}: Insufficient data

Flow Duration: Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)	Flood Event: Recurrence Interval (years)	Magnitude WRC (c.f.s.)	Magnitude Systematic (c.f.s.)
95	339	2	Insufficient data	
90	412	5		
75	587	10		
70	643	25		
50	1030	50		
25	3740	100		
10	11400			

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	461	676	1847	3038	9608	12530	5305	1294	465	913	767	515
Maximum Mean Flow	461	676	1847	3431	9706	13400	5890	1397	487	913	767	515
Minimum Mean Flow	461	676	1847	2645	9511	9673	4720	1191	444	913	767	515

Basin: Green River
Station Number: 09261000
Station Name: Green River near Jensen, Utah
Analyzed Period of Record: 1964-1983*
Mean Annual Discharge: 4133 c.f.s.
Maximum Mean Annual Discharge: 5467 c.f.s.
Minimum Mean Annual Discharge: 1458 c.f.s.
Low Flow Q_{7-10}: 741.31 c.f.s.

Flow Duration:

Time Equaled Or Exceeded (percent)	Flow Value (c.f.s.)
95	1080
90	1440
75	2100
70	2300
50	3060
25	4560
10	9470

Flood Event:

Recurrence Interval (years)	Magnitude* WRC (c.f.s.)	Magnitude* Systematic (c.f.s.)
2	18220.5	18413.6
5	22346.0	22573.0
10	24529.9	24407.2
25	26834.5	26039.5
50	28293.0	26908.8
100	29575.4	27569.2

MONTHLY DISCHARGE:	JAN.	FEB.	MARCH	APRIL	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
Mean Flow	2632	2773	2851	4739	10020	9811	4245	2703	2345	2346	2454	2641
Maximum Mean Flow	4206	4745	4421	8199	16870	14160	8835	4172	3420	3655	4233	4071
Minimum Mean Flow	747	1137	949	2029	5287	3428	498	453	505	346	593	528

*Note: Flaming Gorge Reservoir has an effect on stream flow and flood peaks at this site since 1964.

APPENDIX C
HYDROLOGY SUMMARY FIGURES

Appendix C contains a graphical representation of the mean annual hydrograph for all of the major basins in the study area. Gaging station locations were selected to represent the major stream gaging sites in each basin. The data plotted on the graphs are mean monthly flow rates for the periods of record presented in Appendix B.

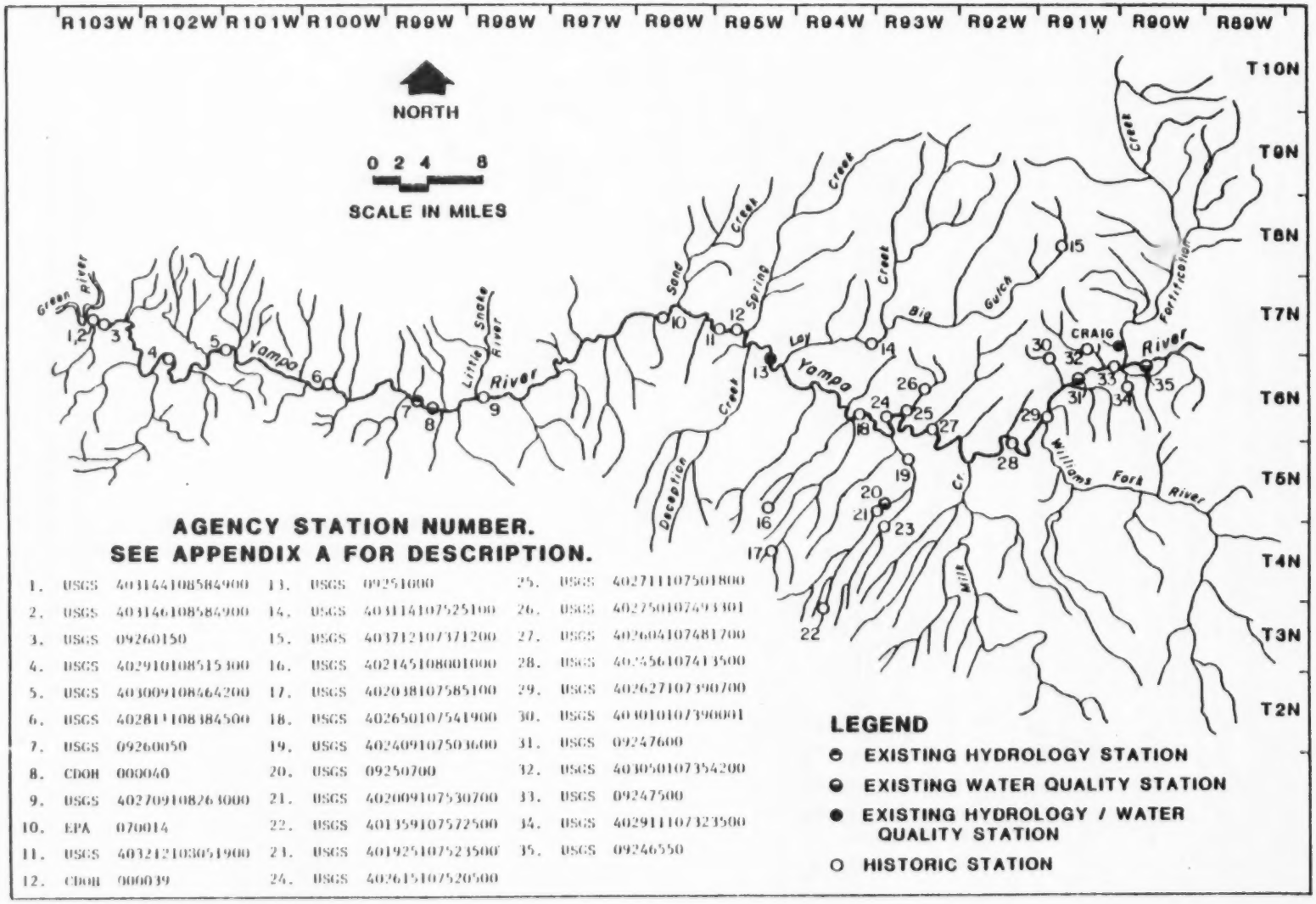
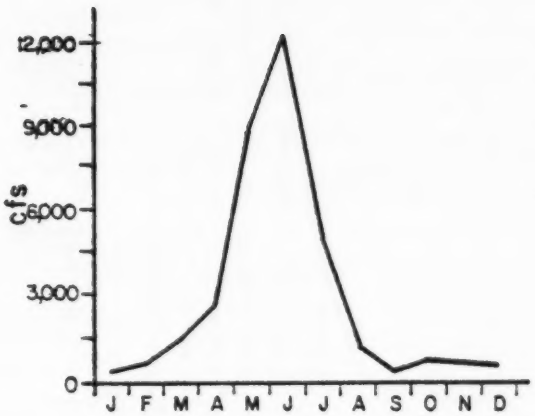
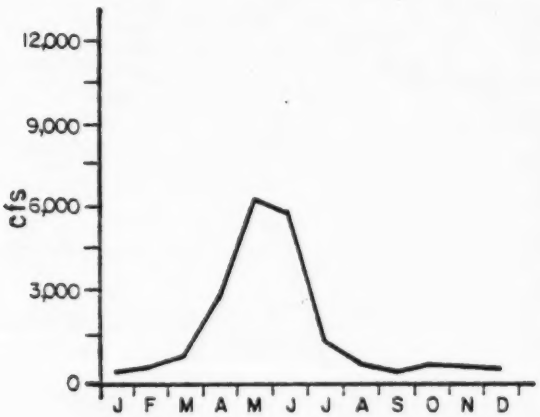


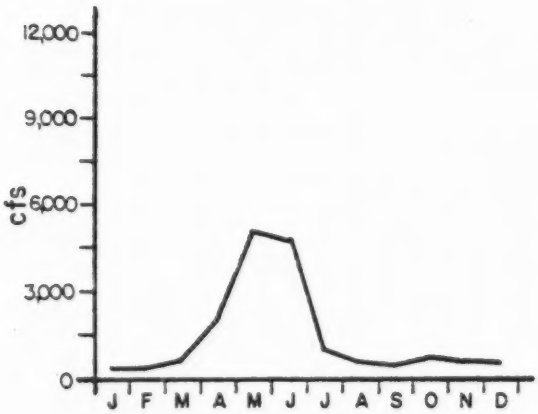
FIGURE C-1. LOWER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



Station No. 09260050
Location: Yampa River at Deerlodge Park, Colorado

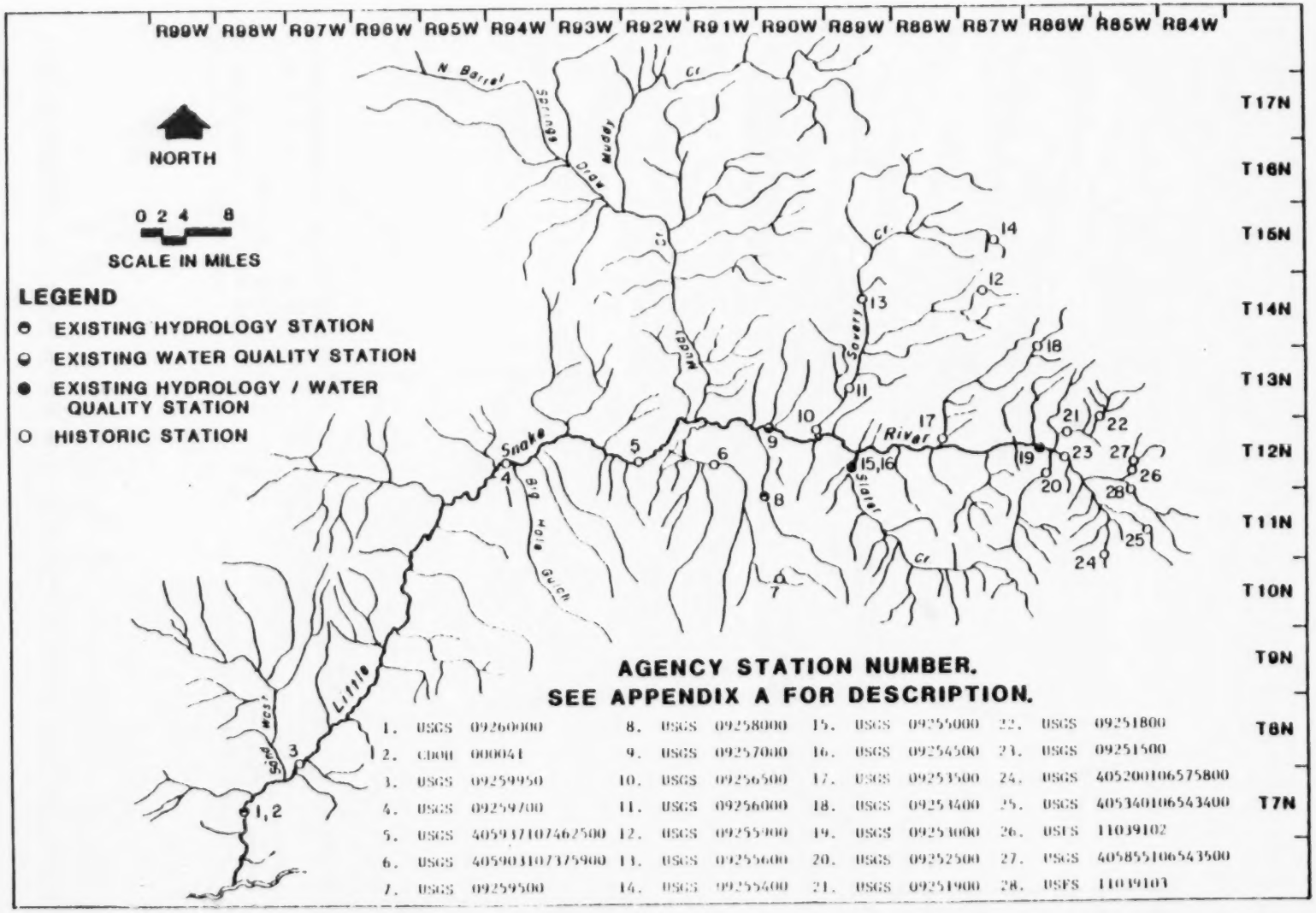


Station No. 09251000
Location: Yampa River near Maybell, Colorado



Station No. 09247500
Location: Yampa River at Craig, Colorado

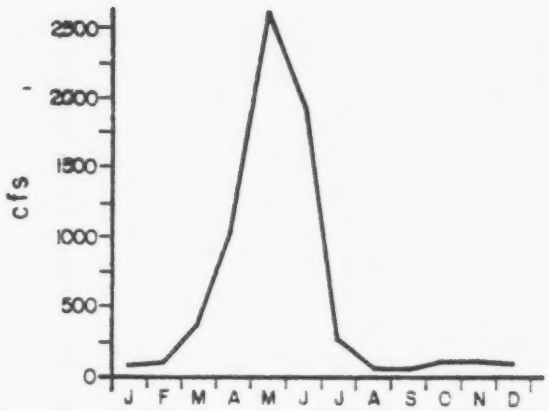
FIGURE C-2. LOWER YAMPA RIVER BASIN AND MINOR TRIBUTARIES MEAN ANNUAL HYDROGRAPH.



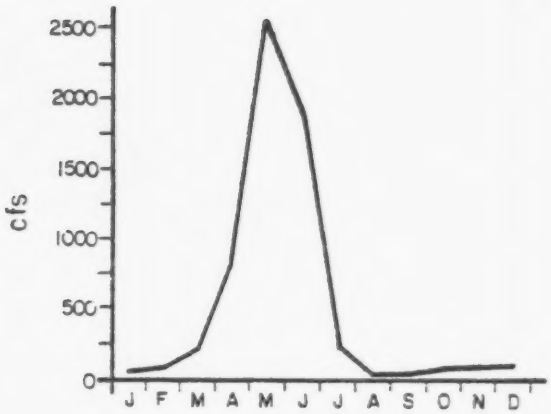
AGENCY STATION NUMBER.
SEE APPENDIX A FOR DESCRIPTION.

1.	USGS	09260000	8.	USGS	09258000	15.	USGS	09255000	22.	USGS	09251800
2.	CDOH	000041	9.	USGS	09257000	16.	USGS	09254500	23.	USGS	09251500
3.	USGS	09259950	10.	USGS	09256500	17.	USGS	09253500	24.	USGS	405200106575800
4.	USGS	09259700	11.	USGS	09256000	18.	USGS	09254400	25.	USGS	405340106543400
5.	USGS	405937107462500	12.	USGS	09255900	19.	USGS	09253000	26.	USFS	11039102
6.	USGS	405903107375900	13.	USGS	09255600	20.	USGS	09252500	27.	USGS	405855106543500
7.	USGS	09259500	14.	USGS	09255400	21.	USGS	09251900	28.	USFS	11039103

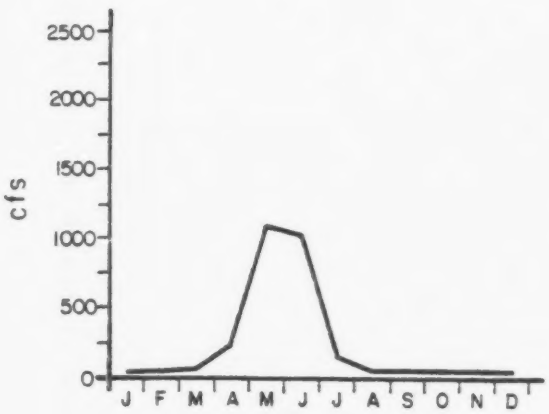
FIGURE C-3. LITTLE SNAKE RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



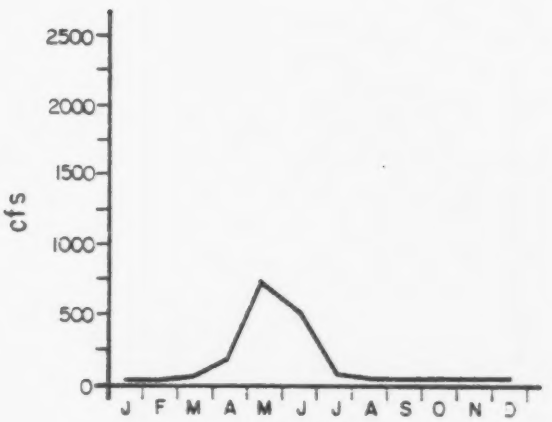
Station No. 09260000
Location: Little Snake River
near Lilly, Colorado



Station No. 09257000
Location: Little Snake River
near Dixon, Wyoming

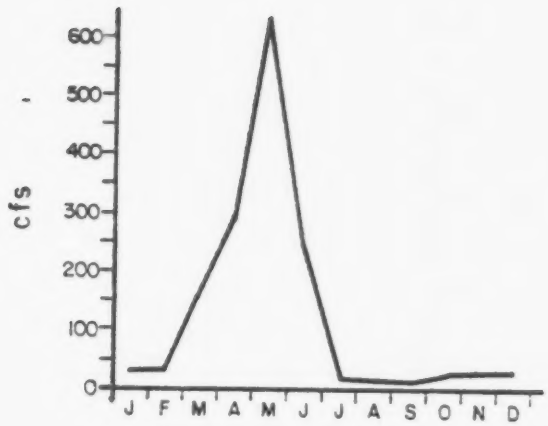


Station No. 09253000
Location: Little Snake River
near Slater, Colorado

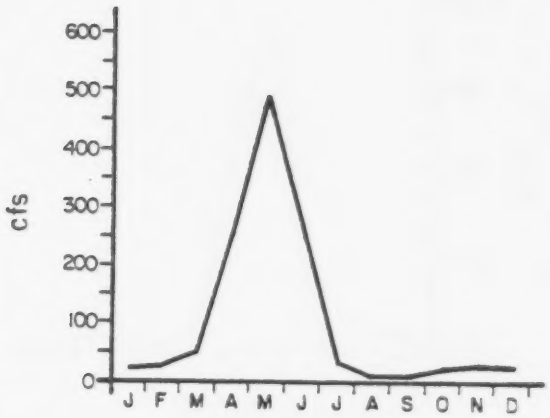


Station No. 09251500
Location: Main Fork Little Snake River
near Battle Creek, Colorado

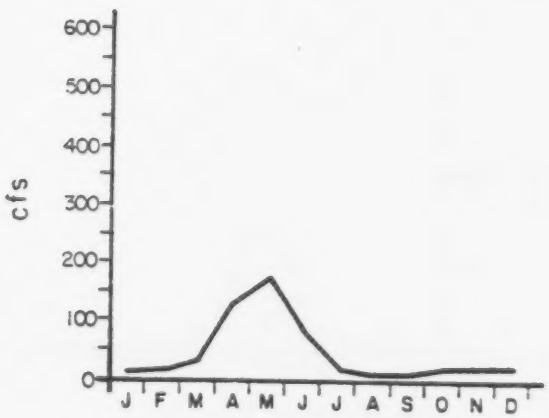
FIGURE C-4. LITTLE SNAKE RIVER BASIN MEAN ANNUAL HYDROGRAPH.



Station No. 09256500
Location: Savery Creek at
Savery, Wyoming

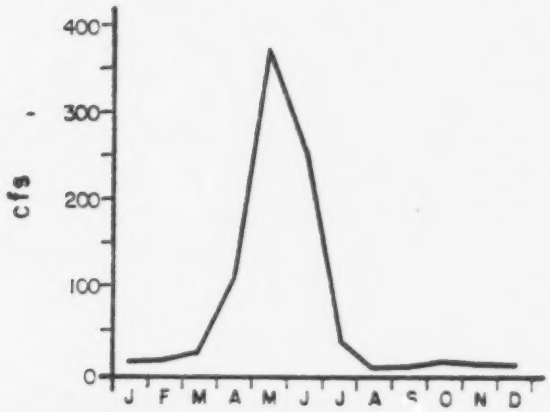


Station No. 09256000
Location: Savery Creek near
Savery, Wyoming

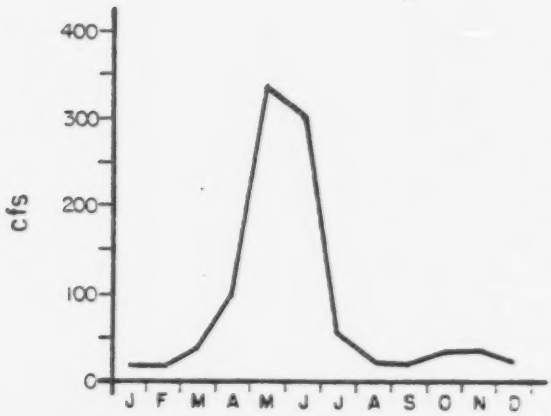


Station No. 09255500
Location: Savery Creek at Upper Station
near Savery, Wyoming

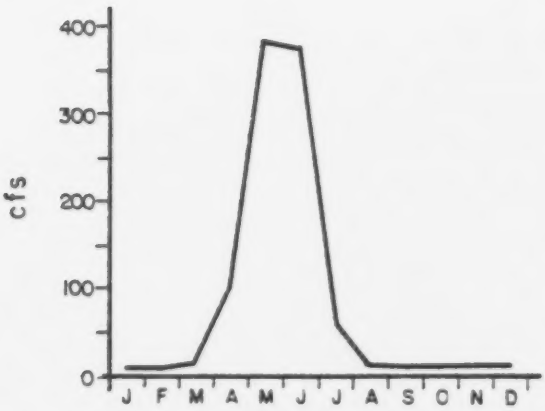
FIGURE C-5. LITTLE SNAKE RIVER BASIN MEAN ANNUAL HYDROGRAPH.



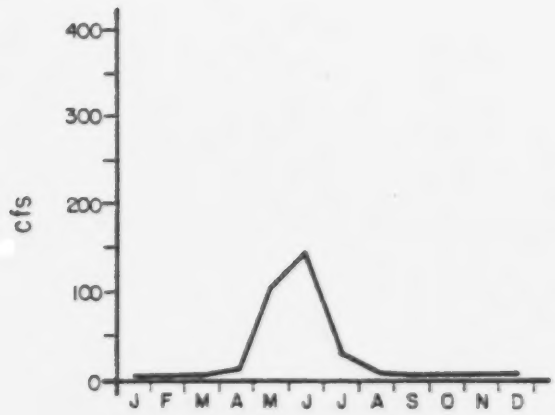
Station No. 09255000
Location: Slater Fork near
Slater, Colorado



Station No. 09254500
Location: Slater Fork at Baxter Ranch
near Slater, Colorado

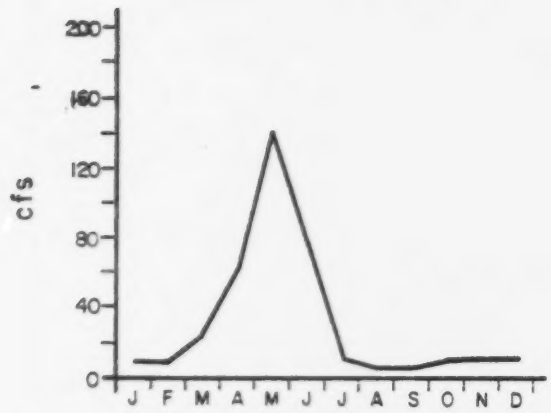


Station No. 09253500
Location: Battle Creek near
Slater, Colorado

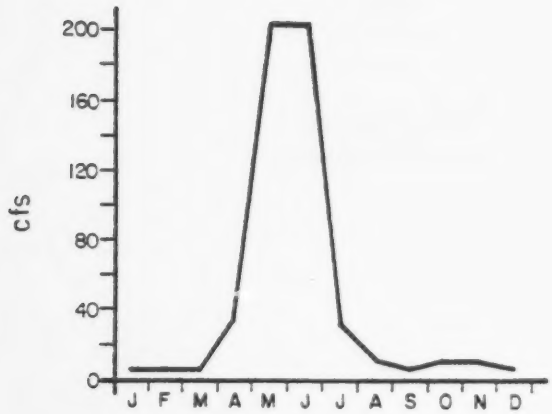


Station No. 09253400
Location: Battle Creek near
Encampment, Wyoming

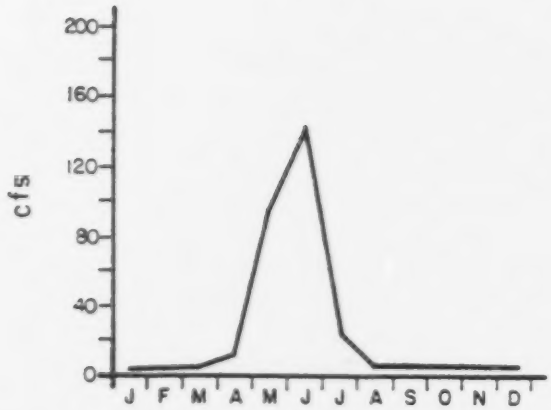
FIGURE C-6. LITTLE SNAKE RIVER BASIN MEAN ANNUAL HYDROGRAPH.



Station No. 09252500
Location: South Fork Little Snake River
near Battle Creek, Colorado

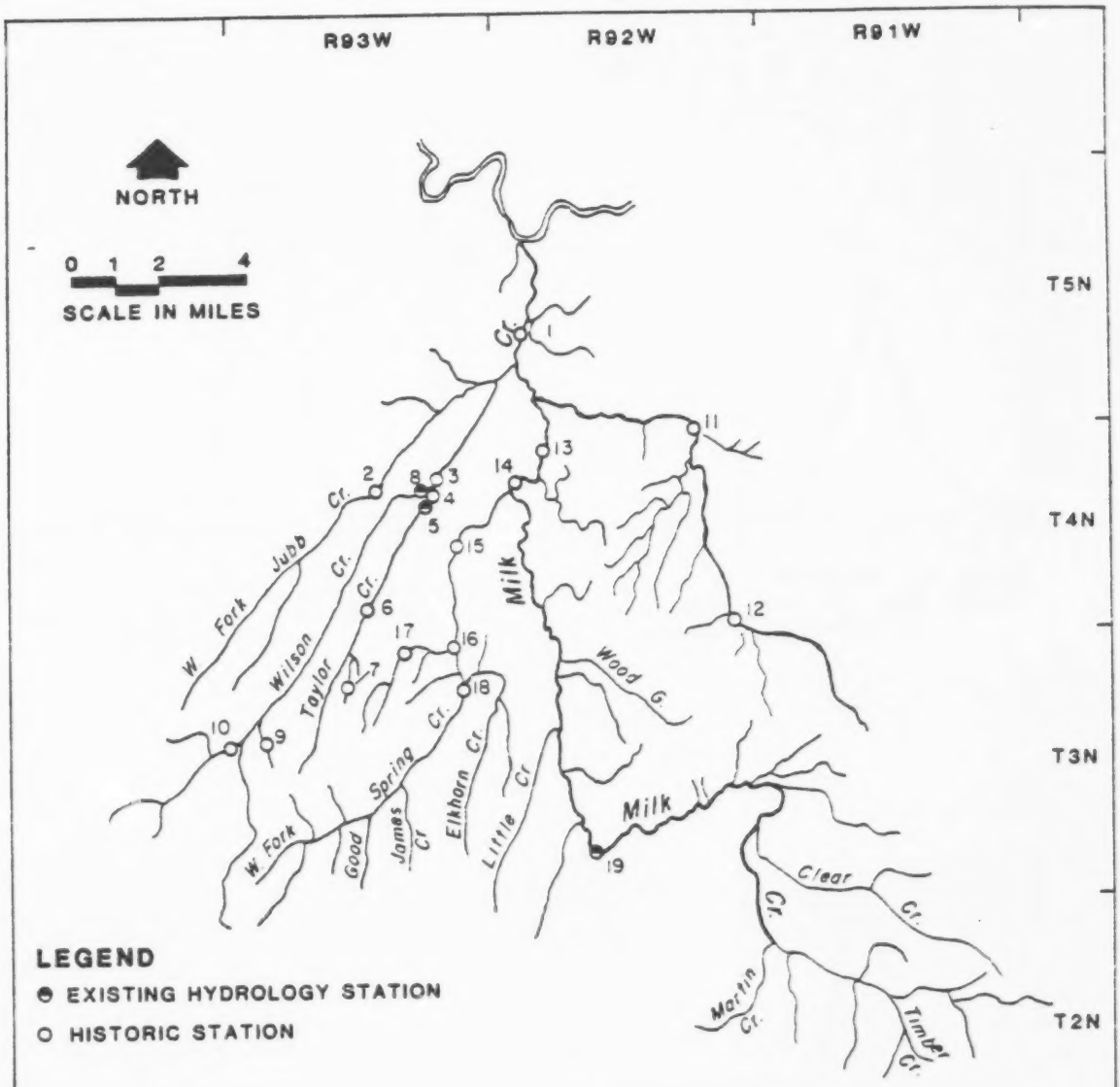


Station No. 09251900
Location: North Fork Little Snake River
near Slater, Colorado



Station No. 09251800
Location: North Fork Little Snake River
near Encampment, Wyoming

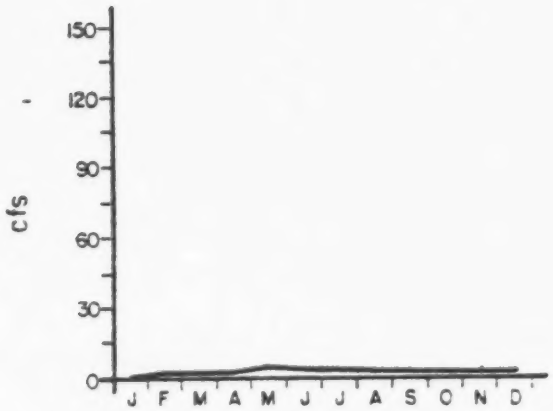
FIGURE C-7. LITTLE SNAKE RIVER BASIN MEAN ANNUAL HYDROGRAPH.



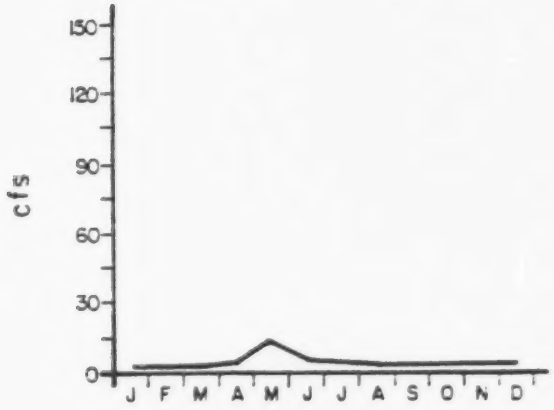
AGENCY STATION NUMBER. SEE APPENDIX A FOR DESCRIPTION.

1. USGS 402154107531000	8. USGS 09250807	14. USGS 09250500
2. USGS 09250610	9. USGS 401348107520200	15. USGS 09250400
3. USGS 09250600	10. USGS 401348107530200	16. USGS 401459107470800
4. USGS 401851107475700	11. USGS 402005107411900	17. USGS 401542107481300
5. USGS 09250510	12. USGS 401601107395300	18. USGS 401544107471800
6. USGS 401623107493400	13. USGS 401948107443600	19. USGS 09250000
7. USGS 401452107500600		

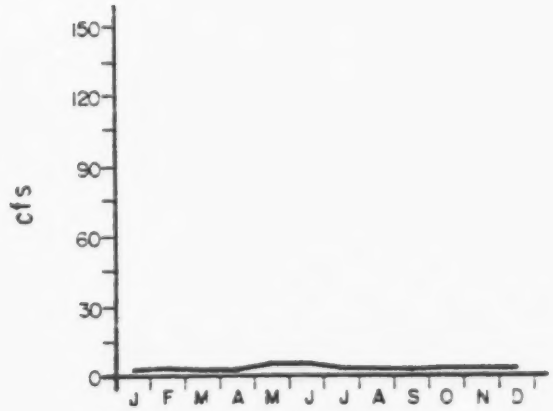
FIGURE C-8. MILK CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



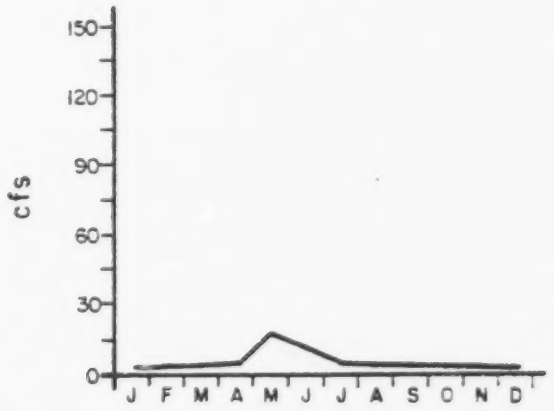
Station No. 09250610
Location: Jubb Creek near
Axial, Colorado



Station No. 09250600
Location: Wilson Creek near
Axial, Colorado

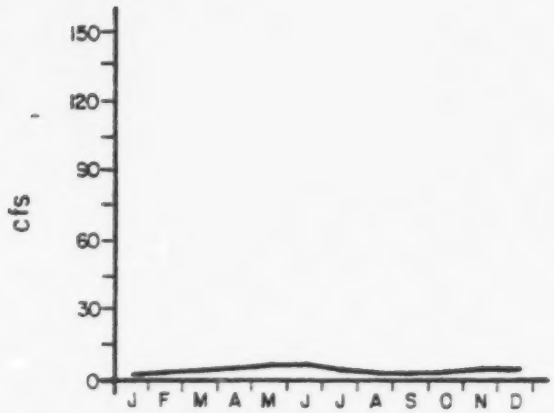


Station No. 09250510
Location: Taylor Creek at mouth near
Axial, Colorado

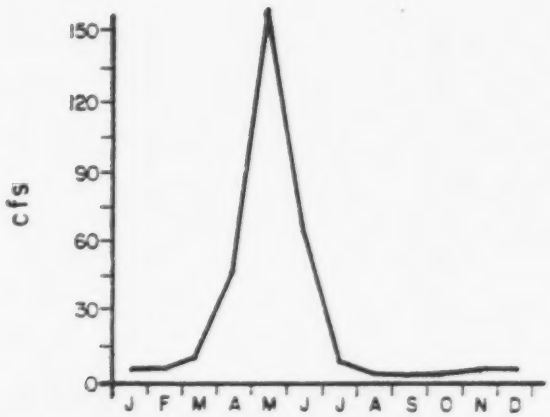


Station No. 09250507
Location: Wilson Creek above Taylor
Creek near Axial, Colorado

FIGURE C-9. MILK CREEK BASIN MEAN ANNUAL HYDROGRAPH.

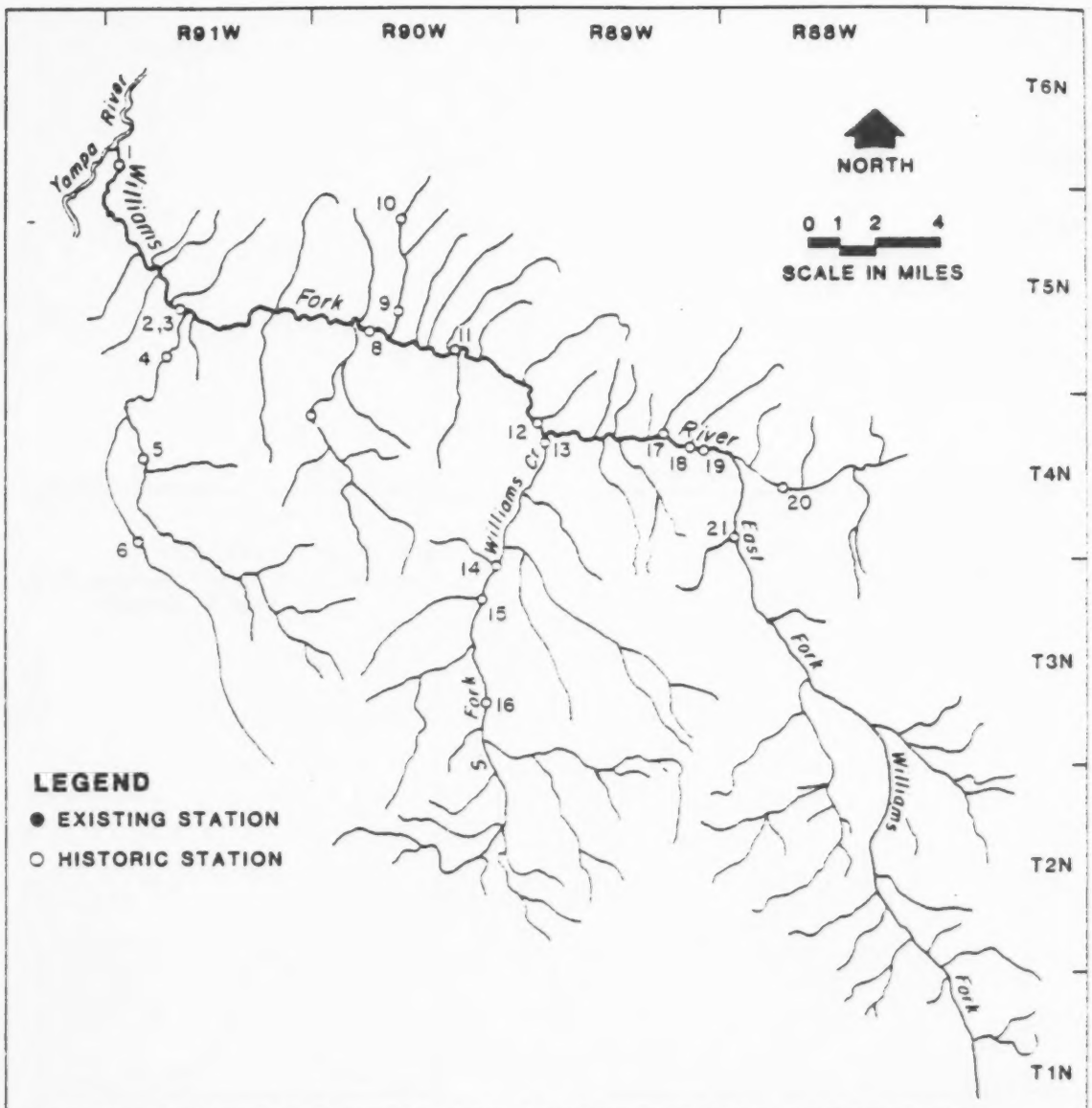


Station No 09250400
Location: Good Spring Creek at
Axial, Colorado



Station No. 09250000
Location: Milk Creek near
Thornburgh, Colorado

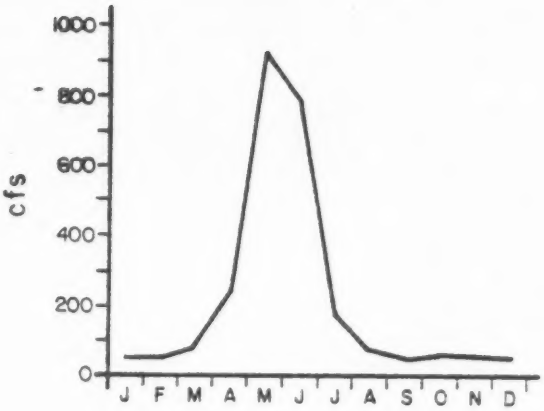
FIGURE C-10. MILK CREEK BASIN MEAN ANNUAL HYDROGRAPH.



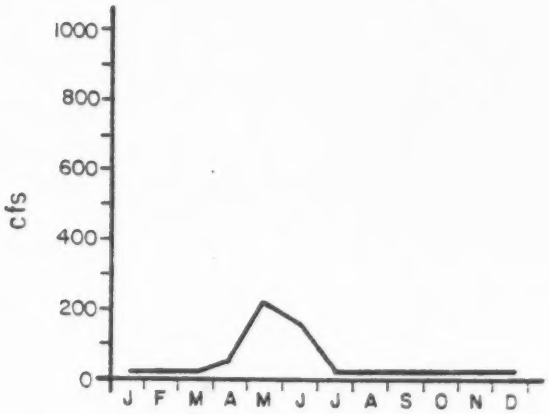
AGENCY STATION NUMBER. SEE APPENDIX A FOR DESCRIPTION.

1.	USGS 09249750	8.	USGS 402152107301300	15.	USGS 401530107262300
2.	USGS 09249500	9.	USGS 402205107293701	16.	USGS 09249200
3.	USGS 402221107365200	10.	USGS 402445107293101	17.	USGS 401913107204100
4.	USGS 09249700	11.	USGS 402127107273501	18.	USGS 09248500
5.	USGS 401829107375600	12.	USGS 402042107252101	19.	USGS 09249000
6.	USGS 401601107375400	13.	USGS 401857107243500	20.	USGS 401747107161600
7.	USGS 401944107322900	14.	USGS 401546107260700	21.	USGS 09248600

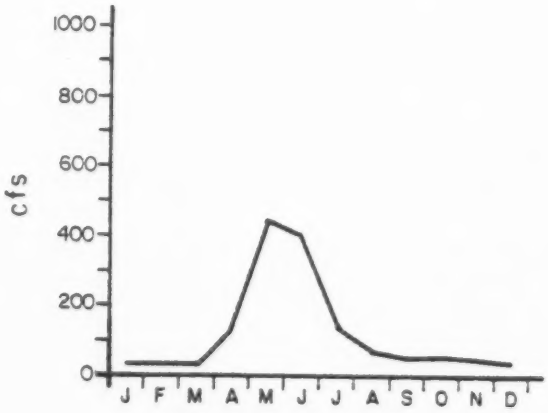
FIGURE C-11. WILLIAMS FORK RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



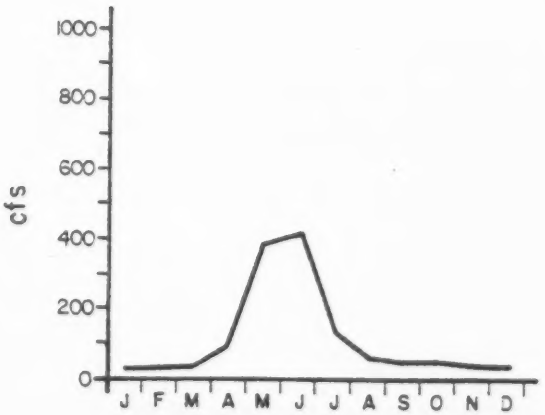
Station No. 09249500
Location: Williams Fork at
Hamilton, Colorado



Station No. 09249200
Location: South Fork of Williams Fork,
near Pagoda, Colorado

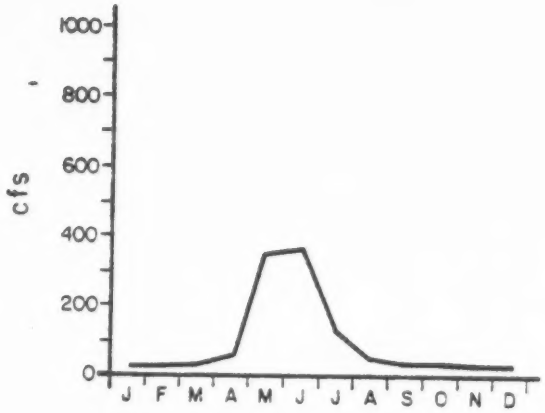


Station No. 09249000
Location: East Fork of Williams Fork,
near Pagoda, Colorado



Station No. 09248600
Location: East Fork of Williams Fork,
above Willow Creek, Colorado

FIGURE C-12. WILLIAMS FORK RIVER BASIN MEAN ANNUAL HYDROGRAPH.



Station No. 09248500
Location: East Fork of Williams Fork,
near Willow Creek, Colorado

FIGURE C-13. WILLIAMS FORK RIVER BASIN MEAN ANNUAL HYDROGRAPH.

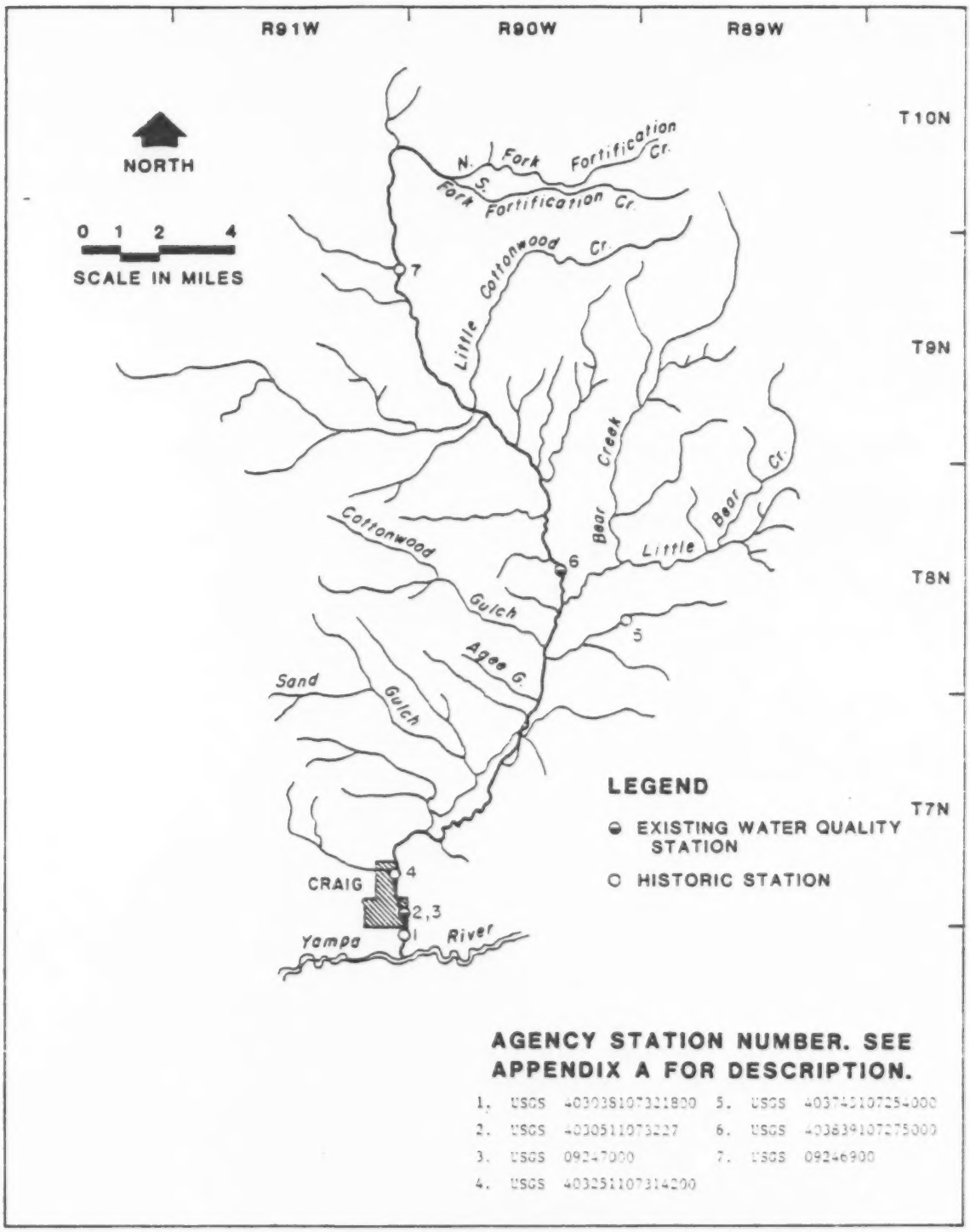
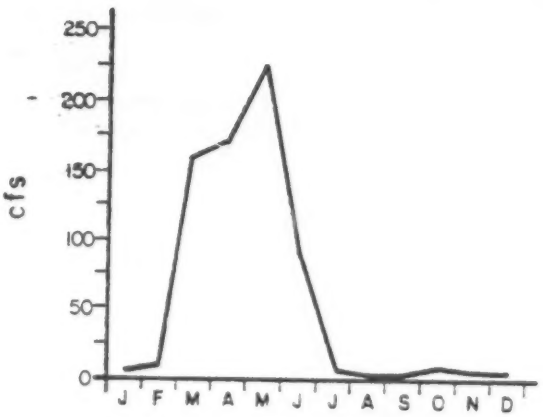
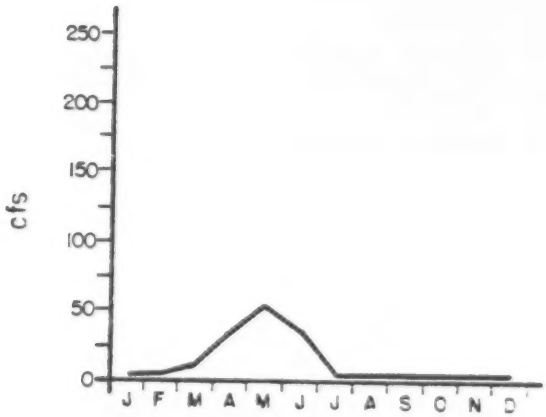


FIGURE C-14. FORTIFICATION CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



Station No. 09247000
Location: Fortification Creek at Craig, Colorado



Station No. 09246900
Location: Fortification Creek near Craig, Colorado

FIGURE C-15. FORTIFICATION CREEK BASIN MEAN ANNUAL HYDROGRAPH.

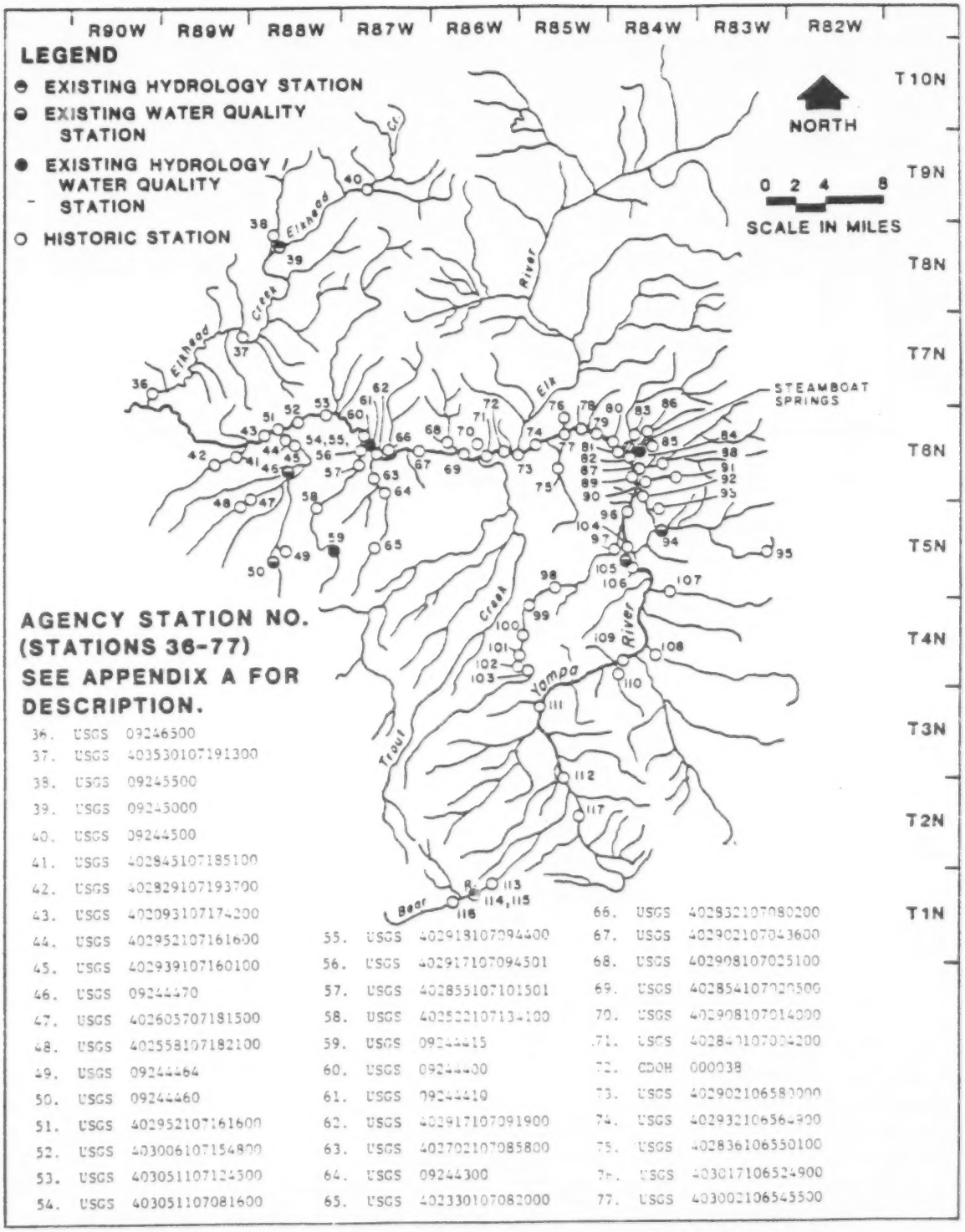
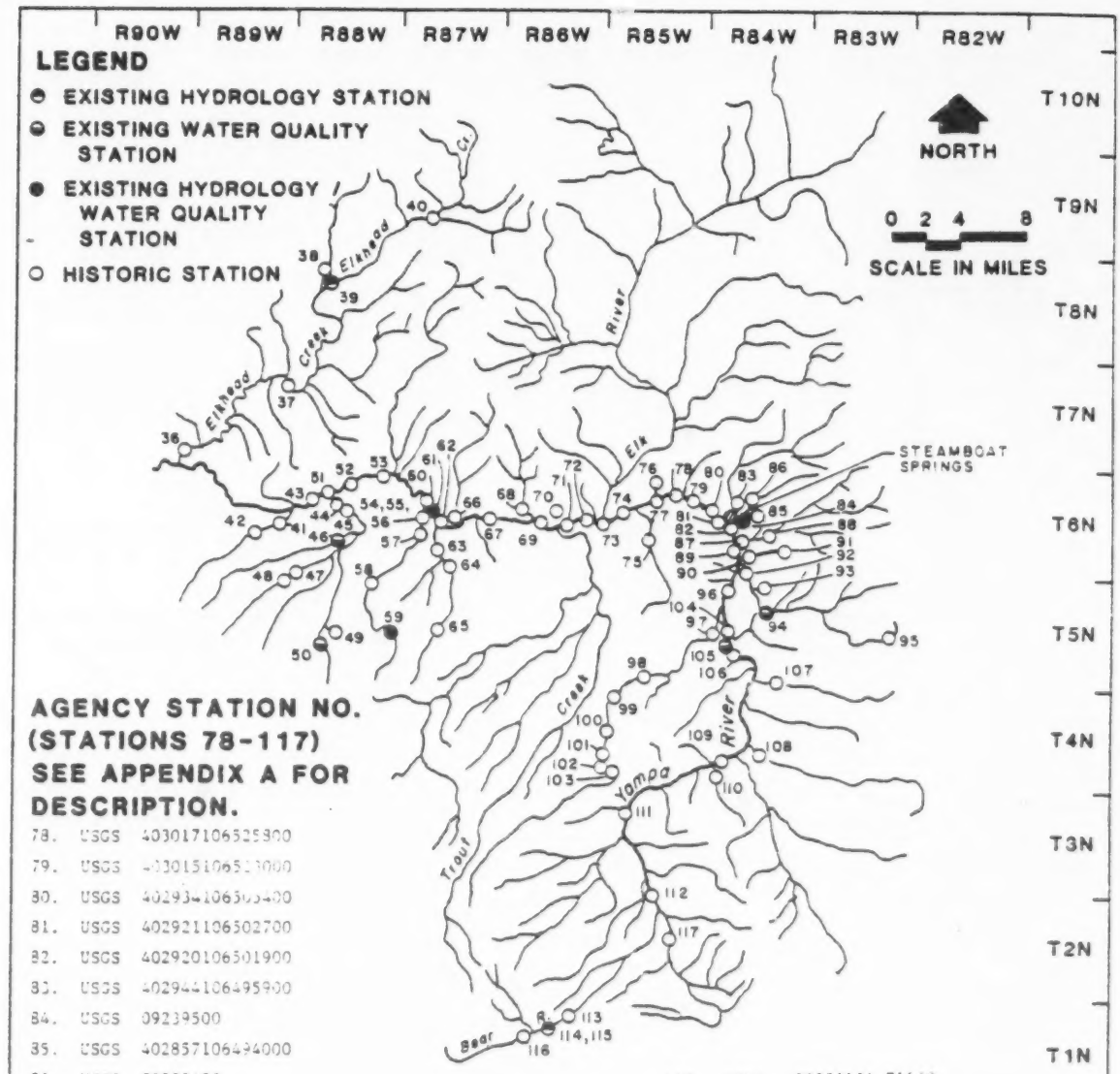
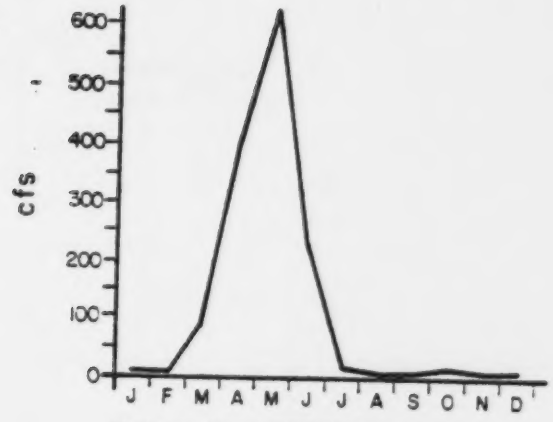


FIGURE C-16. UPPER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.

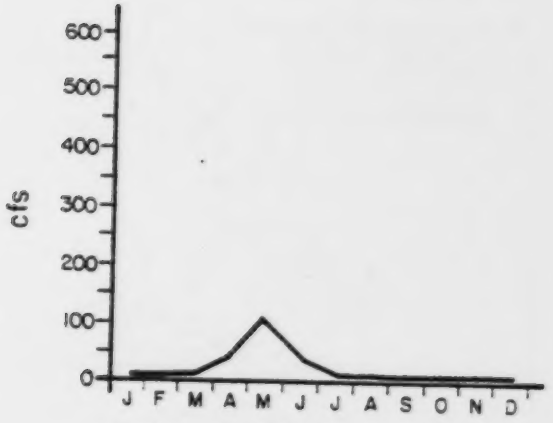


78.	USGS	403017106525900				107.	USGS	402056106471600
79.	USGS	403015106513000				108.	USGS	09237800
80.	USGS	402934106503400	97.	USGS	402356106503000	109.	USGS	401708106495900
81.	USGS	402921106502700	98.	USGS	402113106553400	110.	USGS	401634106502200
82.	USGS	402920106501900	99.	CDOH	000153	111.	USGS	401418106562200
83.	USGS	402944106495900	100.	USGS	401741106574600	112.	USGS	401048106544800
84.	USGS	09239500	101.	USGS	401725106575600	113.	USFS	11057703
85.	USGS	402857106494000	102.	USGS	401643106575400	114.	USGS	11057702
86.	USGS	09239400	103.	USGS	09238000	115.	USGS	09236000
87.	USGS	09239000	104.	USGS	402356106500000	116.	USFS	11057701
88.	USGS	09238900	105.	CDOH	000083	117.	USGS	400759106532500
89.	USGS	402737106493700	106.	USGS	402230106493000			
90.	USGS	402720106481500						
91.	USGS	402745106473600						
92.	USGS	402700106485400						
93.	USGS	402600106473600						
94.	USGS	09238500						
95.	USGS	09238300						
96.	USGS	402544106493300						

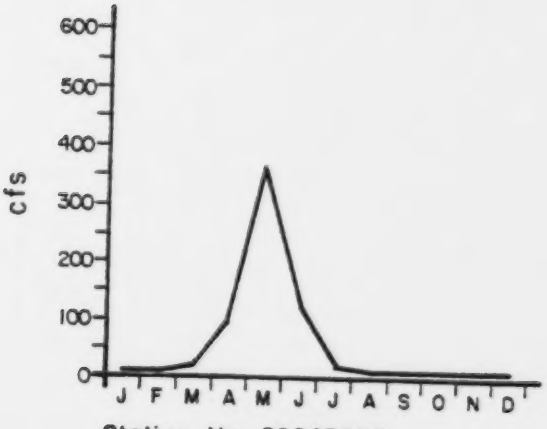
FIGURE C-17. UPPER YAMPA RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



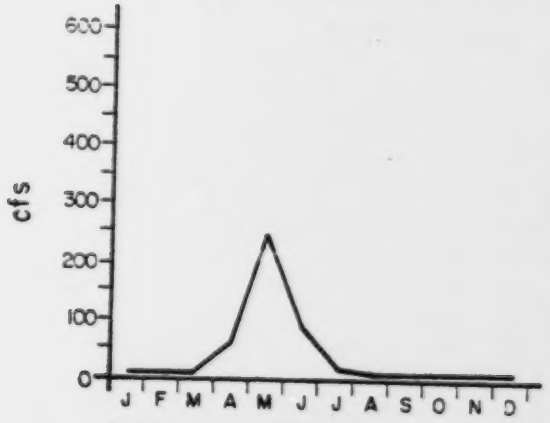
Station No. 09246500
Location: Elkhead Creek near
Craig, Colorado



Station No. 09245500
Location: North Fork Elkhead Creek
near Elkhead, Colorado

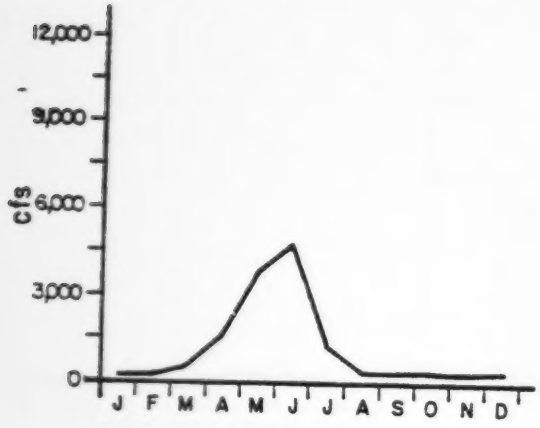


Station No. 09245000
Location: Elkhead Creek near
Elkhead, Colorado

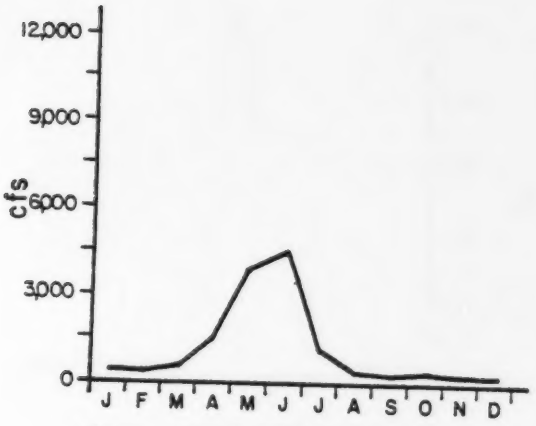


Station No. 09244500
Location: Elkhead Creek near
Clark, Colorado

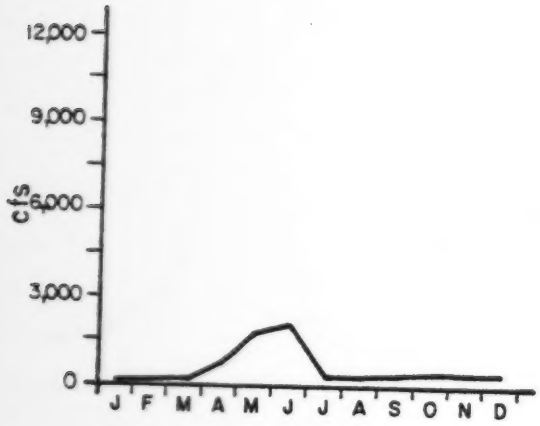
FIGURE C-18. UPPER YAMPA RIVER BASIN AND MINOR TRIBUTARIES MEAN ANNUAL HYDROGRAPH.



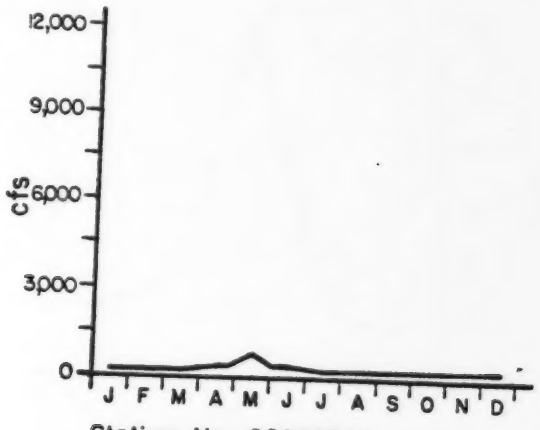
Station No. 09244410
Location: Yampa River, below diversion, near Hayden, Colorado



Station No. 09244400
Location: Yampa River near Hayden, Colorado

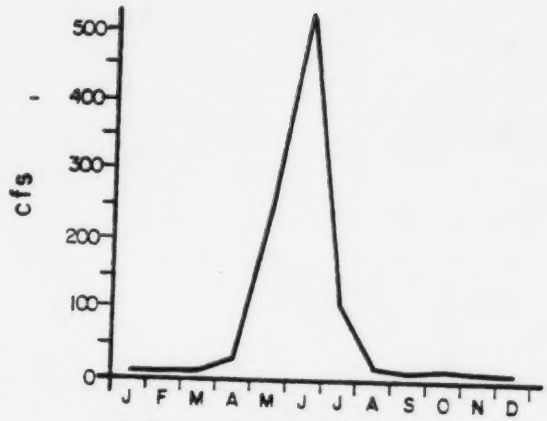


Station No. 09239500
Location: Yampa River at Steamboat Springs, Colorado

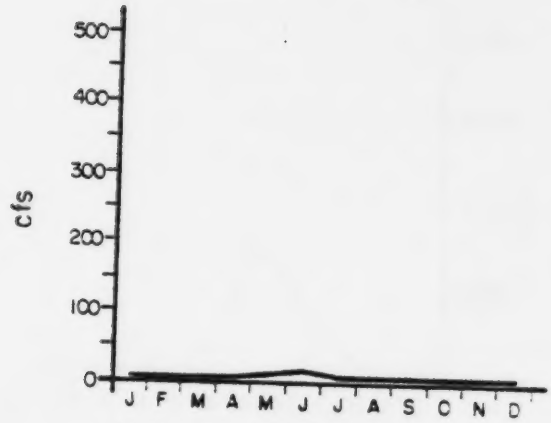


Station No. 09237500
Location: Yampa River near Oak Creek, Colorado

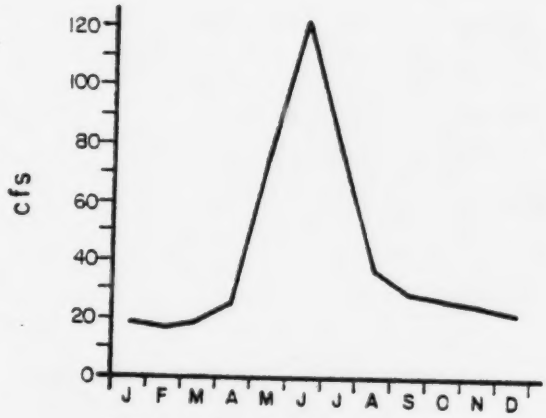
FIGURE C-19. UPPER YAMPA RIVER BASIN AND MINOR TRIBUTARIES MEAN ANNUAL HYDROGRAPH.



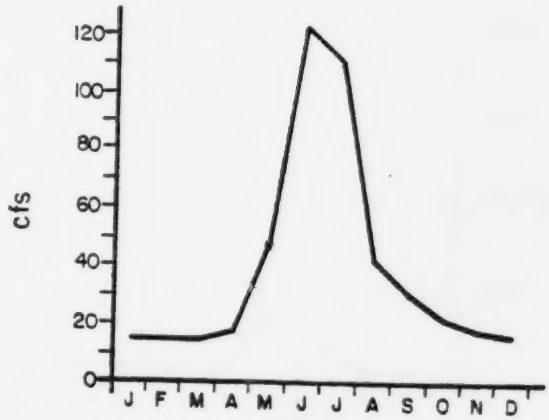
Station No. 09238500
Location: Walton Creek near
Steamboat Springs, Colorado



Station No. 09238300
Location: North Fork Walton Creek near
Rabbit Ears Pass, Colorado



Station No. 09236500
Location: Bear River near
Yampa, Colorado



Station No. 09236000
Location: Bear River near
Toponas, Colorado

FIGURE C-20. UPPER YAMPA RIVER BASIN AND MINOR TRIBUTARIES MEAN ANNUAL HYDROGRAPH.

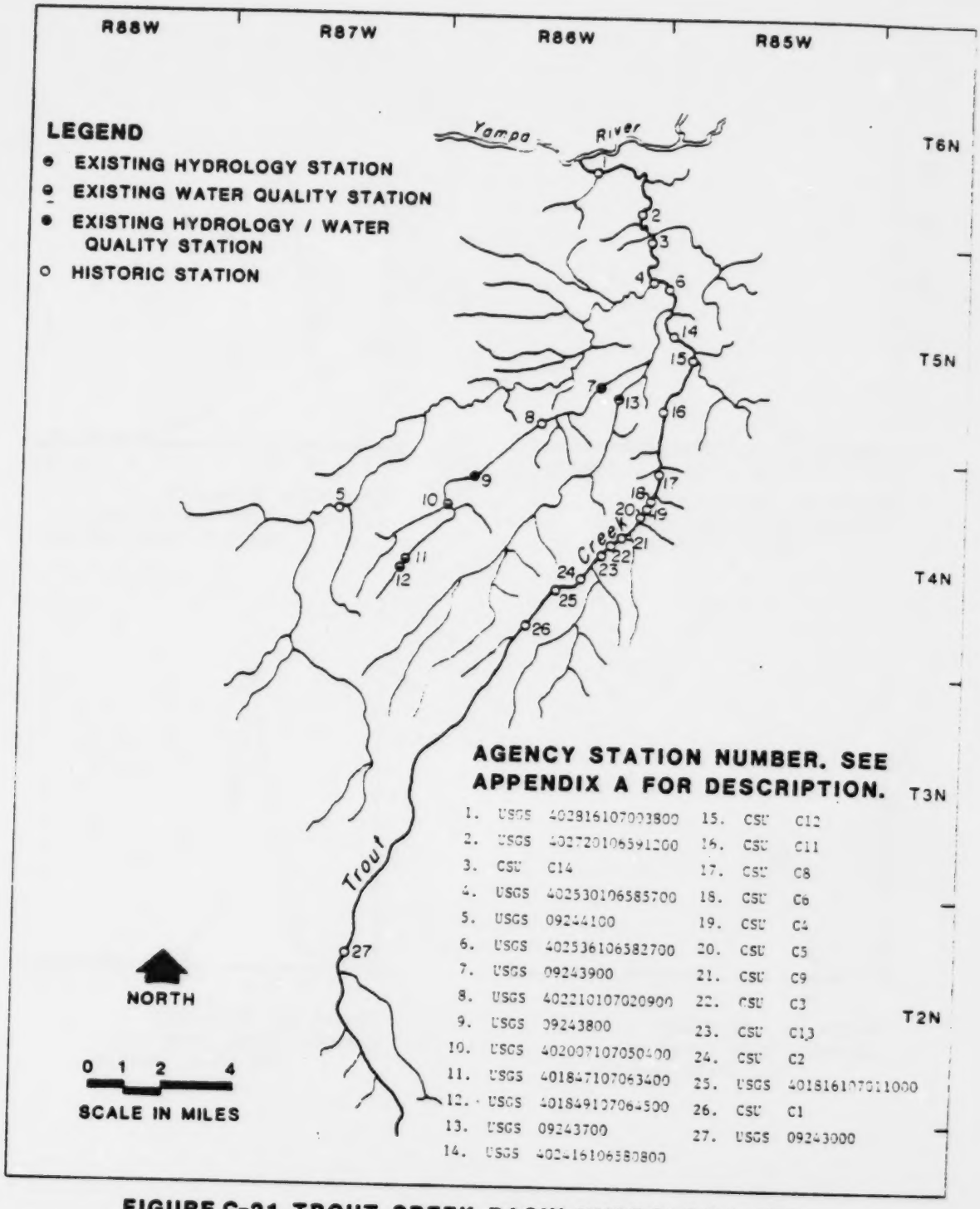
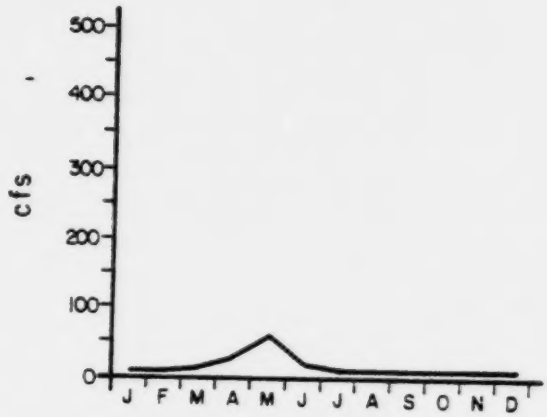
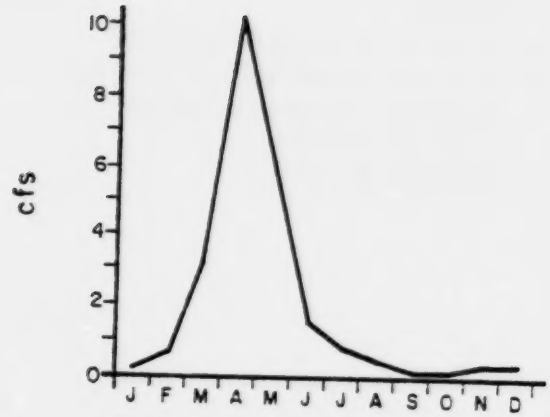


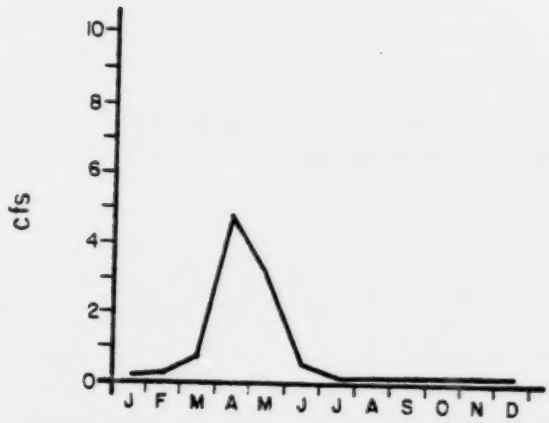
FIGURE C-21. TROUT CREEK BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



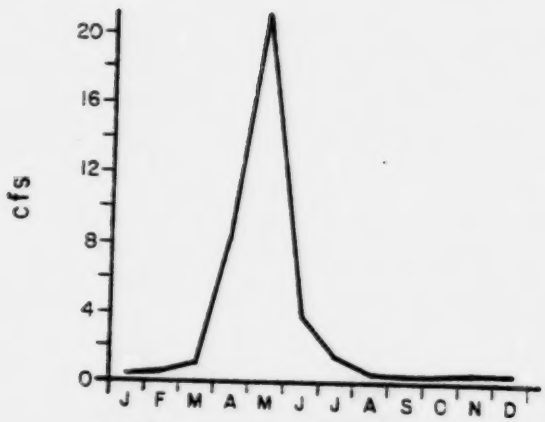
Station No. 09244100
Location: Fish Creek near
Milner, Colorado



Station No. 09243900
Location: Foidel Creek at mouth,
near Oak Creek, Colorado



Station No. 09243800
Location: Foidel Creek near
Oak Creek, Colorado



Station No. 09243700
Location: Middle Creek near
Oak Creek, Colorado

FIGURE C-22. TROUT CREEK BASIN MEAN ANNUAL HYDROGRAPH.

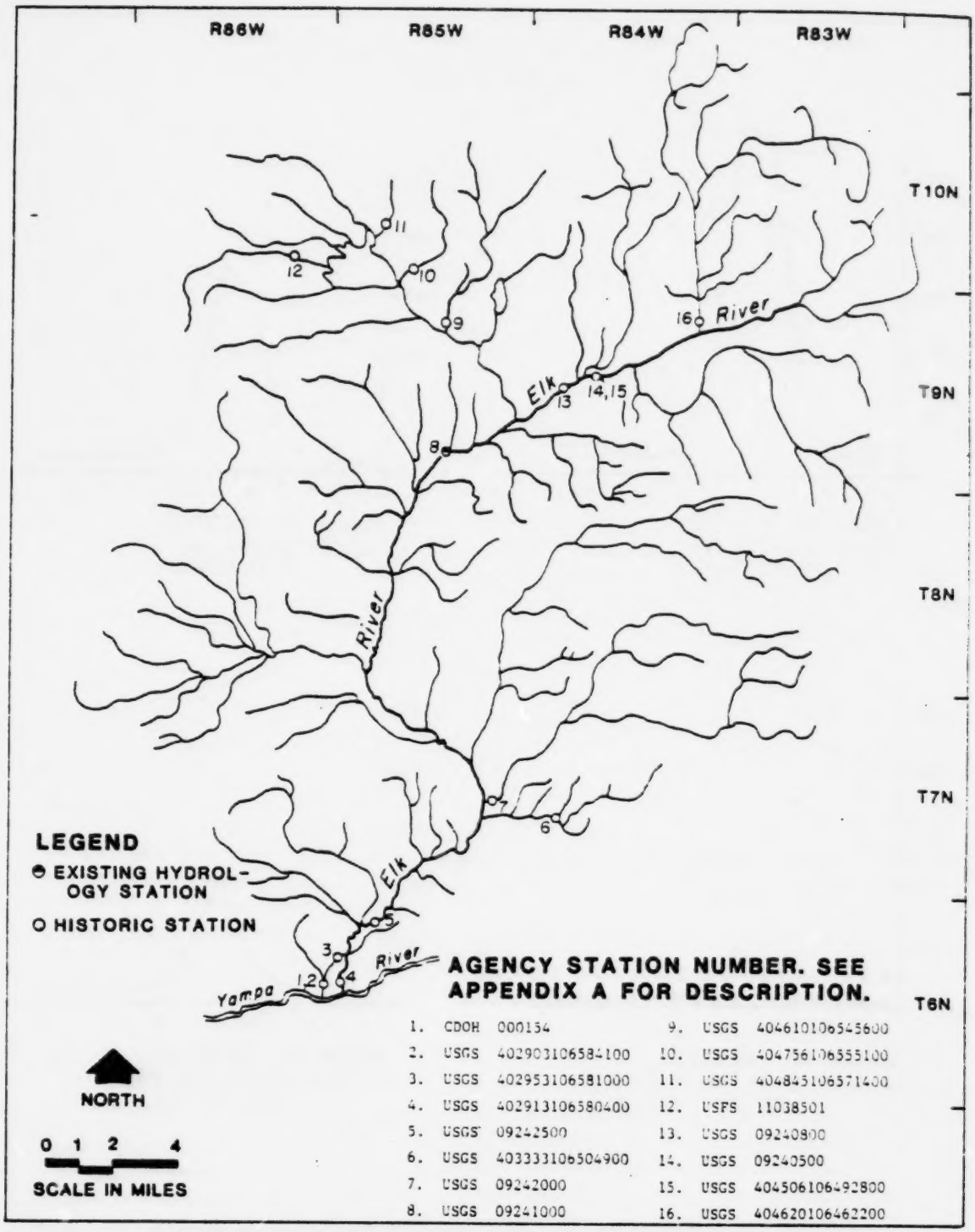
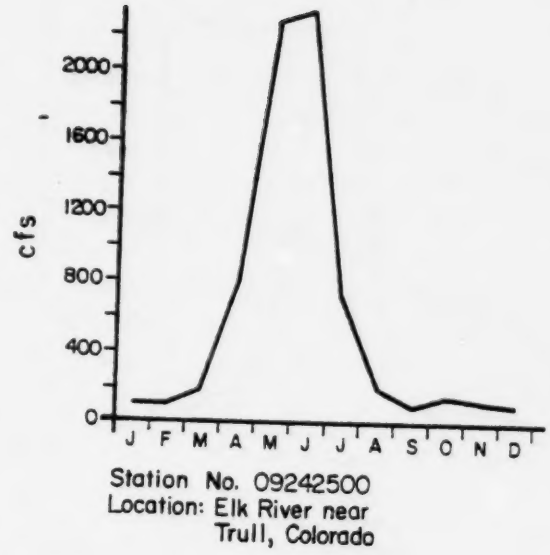
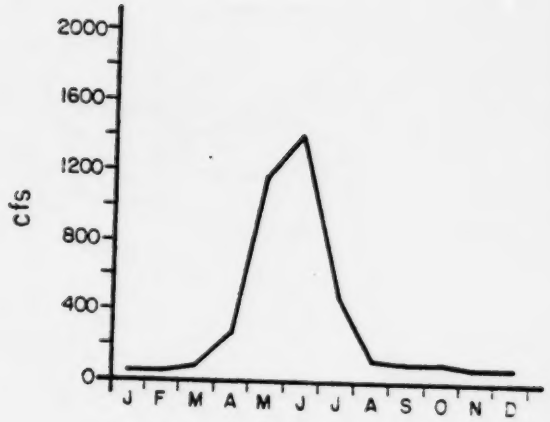


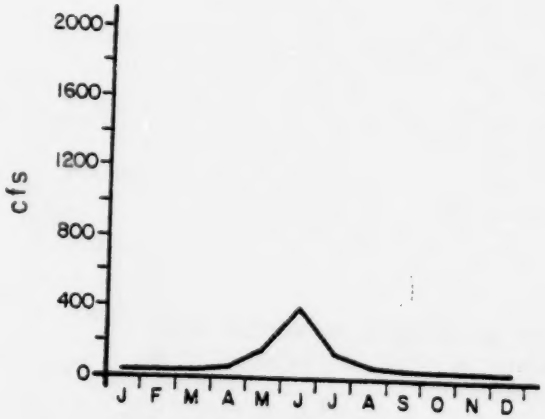
FIGURE C-23. ELK RIVER BASIN HYDROLOGY AND WATER QUALITY SAMPLING STATIONS.



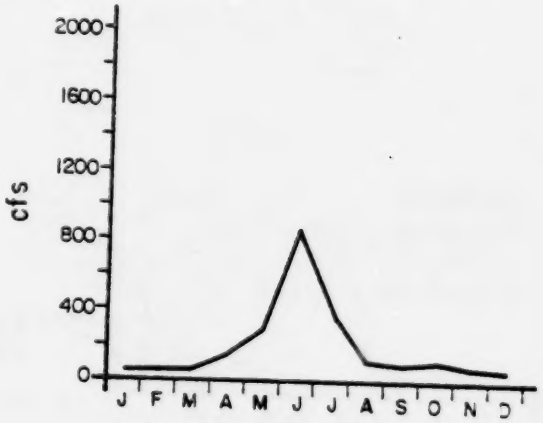
Station No. 09242500
Location: Elk River near
Trull, Colorado



Station No. 09241000
Location: Elk River at
Clark, Colorado



Station No. 09240800
Location: South Fork of Elk River
near Clark, Colorado



Station No. 09240500
Location: Elk River at Hinman
Park, Colorado

FIGURE C-24. ELK RIVER BASIN MEAN ANNUAL HYDROGRAPH.

APPENDIX D
WATER QUALITY SUMMARY TABLES

Appendix D contains, in tabular form, STORET inventory data for all of the surface water quality stations within the study area that have at least 24 collections between 1 January 1978 and 31 December 1983. This period was selected to provide the most current data available and to avoid data entry discrepancies prior to 1978. The limited availability of 1984 data resulted in 31 December 1983 being selected as the end of the period of analysis. This reduced the possibility of bias created by some stations having 1984 data entered into STORET and others not having the data entered into STORET at the time of the data run.

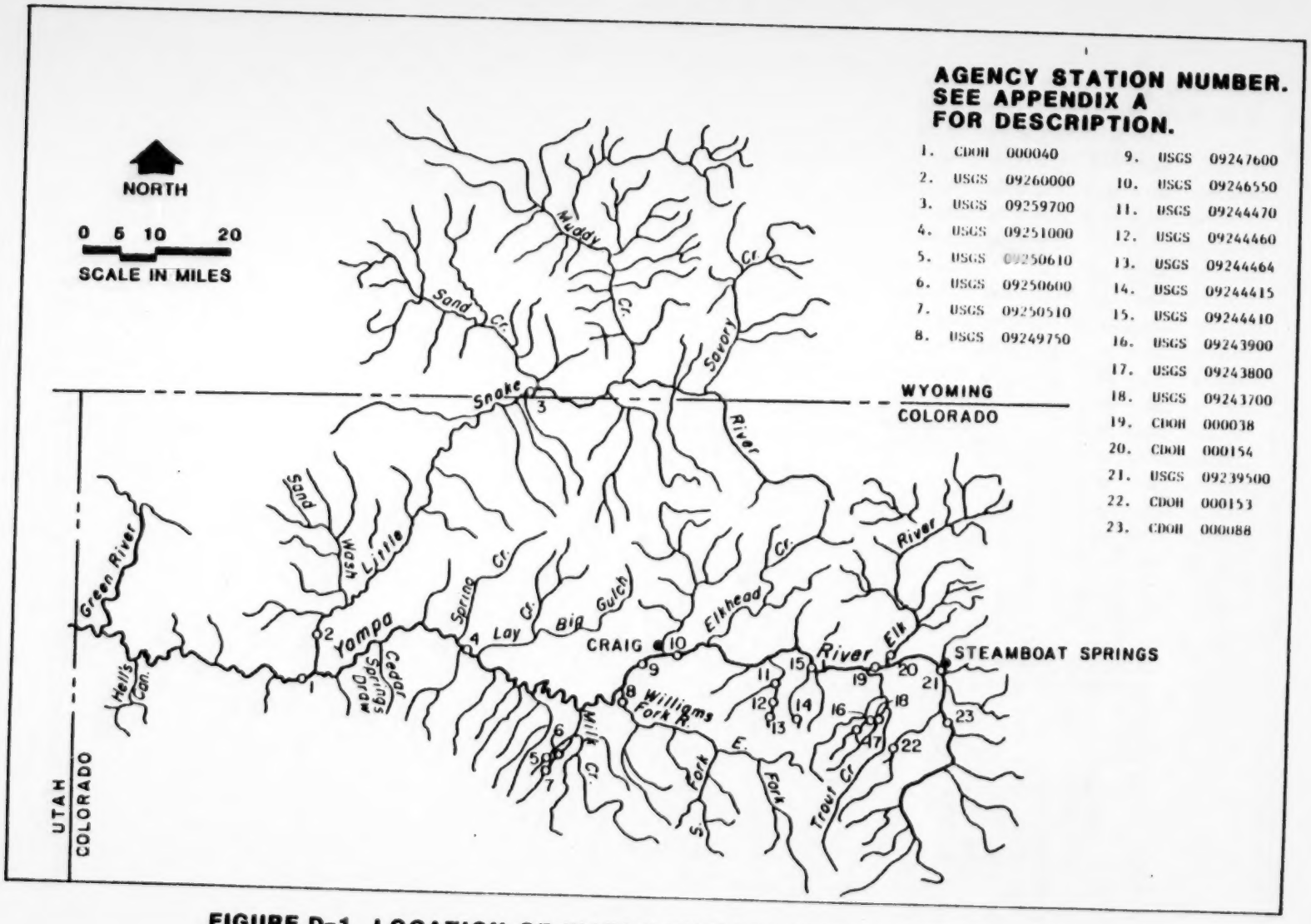


FIGURE D-1. LOCATION OF WATER QUALITY SUMMARY STATIONS.

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

000040
40 26 00.0 108 30 00.0 4
YAMPA BELOW LITTLE SNAKE RIVER
08081 COLORADO MOFFAT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050002000
0000 CLASS 00 CSN-RSP 0041199-0405165

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 045.00

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00011	WATER	TEMP	FAHN		96	48.9645	215.989	14.6966	79.0000	32.0000	68/03/27	84/02/06
00021	AIR	TEMP	FAHN		19	57.6316	328.802	18.1329	85.0000	30.0000	81/01/12	84/02/06
00042	ALTITUDE	FEET	AB MSL		1	5640.00			5640.00	5640.00	01/01/01	01/01/01
00076	TURB	TRBIDMTR	HACH FTU		66	152.185	56720.8	238.161	1200.00	5.00000	68/03/27	80/06/10
00095	CNDUCTVY	AT 25C	MICROMHO		90	474.922	29608.6	172.072	820.000	130.000	68/03/27	84/02/06
00300	DO		MG/L		56	10.1160	3.23416	1.79838	13.5000	7.10000	73/03/13	84/02/06
00310	BOD	5 DAY	MG/L		42	2.08809	1.11815	1.05743	5.00000	.700000	68/08/28	84/02/06
				K	5	1.00000	.000000	.000000	1.00000	1.00000	74/08/13	83/09/07
				TOT	47	1.97234	1.11161	1.05433	5.00000	.700000	68/08/28	84/02/06
00400	PH		SU		88	8.23630	.148976	.385974	9.00000	7.20000	68/03/27	84/02/06
00410	T ALK	CACO3	MG/L		25	126.800	2140.26	46.2629	192.000	3.00000	78/02/06	84/02/06
00500	RESIDUE	TOTAL	MG/L		8	568.250	124093	352.268	1398.00	298.000	74/04/03	75/09/22
00505	RESIDUE	TOT VOL	MG/L		12	98.0833	33887.4	184.085	518.000	3.00000	68/08/28	73/09/26
00530	RESIDUE	TOT NFLT	MG/L		68	293.779	595862	771.921	5700.00	10.0000	68/08/28	84/02/06
				K	3	10.0000	.000000	.000000	10.0000	10.0000	80/09/30	83/01/11
				TOT	71	281.789	573630	757.384	5700.00	10.0000	68/08/28	84/02/06
00545	RESIDUE	SETTLBLE	ML/L		4	20.3000	1584.06	39.8002	80.0000	.200000	70/05/26	73/05/09
				K	8	.100000	.000000	.000000	.100000	.100000	68/08/28	72/07/25
				TOT	12	6.83333	530.935	23.0420	80.0000	.100000	68/08/28	73/05/09
00556	OIL-GRSE	FREON-GR	MG/L		8	10.0000	.000000	.000000	10.0000	10.0000	81/11/23	82/12/06
				K	12	10.0000	.000000	.000000	10.0000	10.0000	81/01/12	84/02/06
				TOT	20	10.0000	.000000	.000000	10.0000	10.0000	81/01/12	84/02/06
00610	NH3+NH4-	N TOTAL	MG/L		65	.432183	6.11298	2.47244	20.0000	.000000	68/10/15	84/02/06
				K	18	.116666	.009412	.097015	.500000	.050000	79/07/09	83/11/14
				TOT	83	.363757	4.79017	2.18865	20.0000	.000000	68/10/15	84/02/06
00615	NO2-N	TOTAL	MG/L		51	.006608	.000160	.012640	.054000	.000000	68/11/26	79/03/20
				K	1	.003000			.003000	.003000	78/12/12	78/12/12
				TOT	52	.006538	.000157	.012525	.054000	.000000	68/11/26	79/03/20
00620	NO3-N	TOTAL	MG/L		55	.425453	.286921	.535650	2.90000	.000000	68/10/15	79/05/09
00625	TOT KJEL	N	MG/L		6	1.48333	.117668	.343027	2.00000	1.10000	79/11/08	83/03/07
				K	23	1.00000	.000000	.000000	1.00000	1.00000	79/07/09	84/02/06
				TOT	29	1.10000	.060715	.246405	2.00000	1.00000	79/07/09	84/02/06
00630	NO2&NO3	N-TOTAL	MG/L		5	.756960	.290870	.539324	1.40000	.004800	80/02/28	84/02/06
				K	24	.445833	.021504	.146641	.500000	.050000	79/07/09	83/11/14
				TOT	29	.499476	.073522	.271149	1.40000	.004800	79/07/09	84/02/06
00650	T PO4	PO4	MG/L		28	.167857	.039854	.199636	.800000	.000000	68/10/15	73/05/09
00665	PHOS-TOT		MG/L P		36	.255805	.159436	.399295	2.00000	.000000	74/04/03	83/09/07
				K	14	.143571	.037363	.193296	.500000	.030000	78/12/12	84/02/06
				TOT	50	.224380	.126387	.355509	2.00000	.000000	74/04/03	84/02/06
00723	CYANIDE	DISSOLVE	UG/L		59	.000508	.000007	.002738	.020000	.000000	68/03/27	80/12/08
				K	17	.038529	.014143	.118924	.500000	.005000	78/12/12	83/05/09

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

000040
40 26 00.0 108 30 00.0 4
YAMPA BELOW LITTLE SNAKE RIVER
08081 COLORADO MOFFAT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050002000
0000 CLASS 00 CSN-RSP 0041199-0405165

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 045.00
PARAMETER

				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00723	CYANIDE	DISSOLVE	UG/L	TOT	76	.009013	.003277	.057248	.500000	.000000	68/03/27	83/05/09
00900	TOT HARD	CACO3	MG/L		69	181.667	3215.48	56.7052	312.000	46.0000	68/03/27	84/02/06
00910	CALCIUM	CACO3	MG/L		64	116.062	1581.27	39.7651	268.000	37.0000	68/03/27	80/12/08
00927	MGNSIUM	MG,TOT	MG/L		64	15.9844	39.8569	6.31323	30.0000	.000000	68/03/27	80/12/08
00929	SODIUM	NA,TOT	MG/L		66	42.5303	468.932	21.6548	90.0000	3.00000	68/03/27	80/06/10
00931	SODIUM	ADSBTION	RATIO		63	1.31904	.422543	.650033	3.40000	.100000	68/03/27	80/06/10
00937	PTSSIUM	K,TOT	MG/L		10	2.62000	.895128	.946112	4.00000	1.00000	78/02/06	83/05/09
00940	CHLORIDE	TOTAL	MG/L		64	23.9531	1516.52	38.9425	322.000	2.00000	68/03/27	80/06/10
00945	SULFATE	SO4-TOT	MG/L		86	112.174	2708.27	52.0410	260.000	12.0000	68/10/15	84/02/06
00951	FLUORIDE	F,TOTAL	MG/L		46	.355434	.025470	.159594	.800000	.100000	68/03/27	77/07/19
00980	IRON	TOT REC	UG/L		87	824.827	1086757	1042.48	5800.00	.000000	68/03/27	84/02/06
00998	BERYLIUM	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/09	80/06/10
				K	3	50.0000	.000000	.000000	50.0000	50.0000	80/12/08	81/11/23
01002	ARSENIC	AS,TOT	UG/L	TOT	6	25.0000	750.000	27.3861	50.0000	.000000	79/05/09	81/11/23
					51	.117647	.705882	.840168	6.00000	.000000	68/03/27	80/06/10
				K	6	10.0000	.000000	.000000	10.0000	10.0000	80/12/08	83/05/09
01022	BORON	B,TOT	UG/L	TOT	57	1.15789	9.99248	3.16109	10.0000	.000000	68/03/27	83/05/09
					53	57.1509	3008.82	54.8527	240.000	.000000	68/03/27	81/11/23
				K	2	50.0000	200.000	14.1421	60.0000	40.0000	80/06/10	80/12/08
01032	CHROMIUM	HEX-VAL	UG/L	TOT	55	56.8909	2902.92	53.8787	240.000	.000000	68/03/27	81/11/23
01045	IRON	FE,TOT	UG/L		41	.000000	.000000	.000000	.000000	.000000	68/03/27	76/06/15
01074	NICKEL	TOT.REC.	UG/L		1	820.000			820.000	820.000	83/07/11	83/07/11
					3	.000000	.000000	.000000	.000000	.000000	79/05/09	80/06/10
				K	4	87.5000	625.000	25.0000	100.000	50.0000	78/12/12	81/11/23
01079	SILVER	TOT.REC.	UG/L	TOT	7	50.0000	2500.00	50.0000	100.000	.000000	78/12/12	81/11/23
					23	.217391	1.08696	1.04257	5.00000	.000000	68/11/26	80/06/10
				K	6	.200000	.357E-07	.000189	.200000	.200000	80/12/08	83/05/09
01094	ZINC(ZN)	TOT.REC.	UG/L	TOT	29	.213793	.854088	.924169	5.00000	.000000	68/11/26	83/05/09
					65	23.2308	2012.84	44.8647	200.000	.000000	68/03/27	83/03/07
				K	18	12.2222	18.3007	4.27793	20.0000	10.0000	80/08/14	84/02/06
01104	ALUMINUM	TOT.REC.	UG/L	TOT	83	20.8434	1595.62	39.9452	200.000	.000000	68/03/27	84/02/06
					4	250.000	250000	500.000	1000.00	.000000	79/05/09	81/05/18
				K	3	1166.67	83334.0	288.676	1500.00	1000.00	78/12/12	81/11/23
01113	CADIUM T	OT.REC.	UG/L	TOT	7	642.857	392858	626.784	1500.00	.000000	78/12/12	81/11/23
					69	.198551	.165145	.406380	1.80000	.000000	68/03/27	84/02/06
				K	14	.299999	.220E-06	.000469	.300000	.300000	80/08/14	83/11/14
01114	LEAD(PB)	TOT.REC.	UG/L	TOT	83	.215662	.138410	.372035	1.80000	.000000	68/03/27	84/02/06
					65	2.76923	38.9928	6.24442	28.0000	.000000	68/03/27	83/03/07
				K	21	5.19048	.761914	.872877	9.00000	5.00000	78/12/12	84/02/06
01118	CHRMIUM	TOT.REC.	UG/L	TOT	86	3.36046	30.6332	5.53473	28.0000	.000000	68/03/27	84/02/06
					8	.000000	.000000	.000000	.000000	.000000	76/08/23	77/11/15

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

000040
40 26 00.0 108 30 00.0 4
YAMPA BELOW LITTLE SNAKE RIVER
08081 COLORADO MOFFAT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050002000
0000 CLASS 00 CSN-RSP 0041199-0405165

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 045.00

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01119 COPPER	TOT.REC.	UG/L			69	3.89855	40.5337	6.36661	25.0000	.000000	68/03/27	83/05/09
				K	17	5.00000	.000000	.000000	5.00000	5.00000	80/08/14	84/02/06
01123 MNGANESE	TOT.REC.	UG/L		TOT	86	4.11628	32.6216	5.71153	25.0000	.000000	68/03/27	84/02/06
					70	73.2857	21784.7	147.596	740.000	.000000	68/03/27	84/02/06
01.29 MOLBDNUM	TOT.REC.	UG/L		K	14	50.0000	.000000	.000000	50.0000	50.0000	68/11/26	83/11/14
01147 SELENIUM	SE,TOT	UG/L		TOT	84	69.4048	18186.4	134.857	740.000	.000000	68/03/27	84/02/06
					22	.454545	4.54545	2.13201	10.0000	.000000	71/02/02	77/07/19
					43	.395349	1.33998	1.15757	6.00000	.000000	68/03/27	80/12/09
01503 ALPHA	DISOLVED	PC/L		K	3	3.00000	3.00000	1.73205	5.00000	2.00000	78/12/12	81/11/23
01504 ALPHA-D	ERROR	PC/L		TOT	46	.565217	1.80676	1.34416	6.00000	.000000	68/03/27	81/11/23
03503 BETA	DISOLVED	PC/L			12	16.1916	88.4102	9.40267	35.2000	5.00000	70/09/10	76/12/13
03504 BETA-D	ERROR	PC/L			12	13.3333	62.6479	7.91504	37.6000	7.00000	70/09/10	76/12/13
09503 RA-226	DISOLVED	PC/L			11	12.8364	141.183	11.8820	43.9000	.400000	69/06/17	77/05/10
09504 RA-226-D	ERROR	PC/L			11	17.1545	645.143	25.3997	93.0000	.300000	69/06/17	77/05/10
22703 U-NAT	DISOLVED	UG/L			1	.080000			.080000	.080000	70/09/10	70/09/10
31505 TOT COLI	MPN CONF	/100ML			1	.090000			.090000	.090000	70/09/10	70/09/10
31615 FEC COLI	MPNECMED	/100ML			7	2.04286	1.91286	1.38306	4.00000	.000000	79/05/09	83/05/09
					61	541.492	1373581	1172.00	7900.00	4.00000	68/03/27	78/04/10
					76	90.8735	18995.5	137.824	790.000	2.00000	68/03/27	83/05/09
				K	11	2.76364	.166554	.408111	3.00000	2.00000	70/07/07	84/02/06
				L	1	3.00000			3.00000	3.00000	78/02/06	78/02/06
				O	1	.000000			.000000	.000000	83/07/11	83/07/11
38260 MBAS		MG/L		TOT	89	77.9751	17173.1	131.046	790.000	.000000	68/03/27	84/02/06
70300 RESIDUE	DISS-180	C MG/L			39	.000769	.000023	.004804	.030000	.000000	68/10/15	77/09/12
71900 MERCURY	HG,TOTAL	UG/L			91	323.374	13775.9	117.371	584.000	95.0000	68/03/27	84/02/06
					3	.000000	.000000	.000000	.000000	.000000	79/05/09	80/06/10
				K	6	.583333	.041667	.204124	1.00000	.500000	80/12/08	83/05/09
				TOT	9	.388889	.111111	.333334	1.00000	.000000	79/05/09	83/05/09

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09260000
40 32 50.0 108 25 25.0 2
LITTLE SNAKE RIVER NEAR LILY, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050003000
0000 CLASS 00 CSN-RSP 0029557-0269864

INDEX 1101000 010670 02380 0390
MILES 0929.90 0342.20 048.40 010.00

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00008	LAB	IDENT.	NUMBER		1	760766			760766	760766	75/09/17	75/09/17
00010	WATER	TEMP	CENT		647	11.0182	85.6012	9.25209	94.0000	.000000	58/04/30	83/11/29
00025	BAROMTRC	PRESSURE	MM OF HG		3	620.333	21.5000	4.63681	623.000	615.000	82/12/03	83/11/29
00027	COLLECT	AGENCY	CODE		5	1028.00	.000000	.000000	1028.00	1028.00	82/12/03	83/11/29
00028	ANALYZE	AGENCY	CODE		46	78298.6	.135E+09	11645.7	80020.0	1028.00	78/07/25	83/11/29
00041	WEATHER	WMO CODE	4501		23	1.52174	6.71542	2.59141	13.0000	.000000	73/10/03	77/11/17
00049	SURFACE	AREA	SQ. MI.		234	3730.00	-.626E+02	.000000	3730.00	3730.00	50/12/11	59/09/30
00060	STREAM	FLOW	CFS		331	554.839	1056098	1027.67	6806.00	.030000	50/12/11	74/09/24
00061	STREAM	FLOW,	INST-CFS		538	724.231	1382281	1175.70	7050.00	.060000	58/04/30	83/11/29
				J	9	207.778	44883.5	211.857	600.000	50.0000	79/01/17	83/09/18
				TOT	547	715.733	1364478	1168.11	7050.00	.060000	58/04/30	83/11/29
00065	STREAM	STAGE	FEET		3	1.63333	.363337	.602774	2.20000	1.00000	76/08/11	83/11/29
00070	TURB	JKSN	JTU		36	784.528	9390555	3064.40	18000.0	3.00000	75/01/22	78/06/08
00076	TURB	TRBIDMTR	HACH FTU		43	356.802	800686	894.810	5100.00	1.00000	78/07/25	83/11/29
00080	COLOR	PT-CO	UNITS		81	12.9383	72.0087	8.48579	45.0000	5.00000	50/12/11	53/09/30
00095	CNDUCTVY	AT 25C	MICROMHO		421	667.275	115279	339.527	1850.00	140.000	50/12/11	83/11/29
00300	DO		MG/L		122	8.71713	2.48799	1.57734	12.2000	4.70000	70/04/28	83/11/29
00400	PH		SU		408	7.85285	.087387	.295612	8.60000	7.00000	50/12/11	83/11/29
00403	LAB	PH	SU		20	8.16000	.068822	.262339	8.40000	7.30000	80/10/02	83/11/29
00405	CO2		MG/L		59	3.94915	13.7291	3.70528	19.0000	.600000	71/11/30	78/06/08
00410	T ALK	CACO3	MG/L		127	159.954	2738.54	52.3311	274.000	22.6000	69/08/04	80/08/28
00440	HCO3 ION	HCO3	MG/L		334	202.691	3641.87	60.3479	462.000	67.0000	50/12/11	78/06/08
00445	CO3 ION	CO3	MG/L		126	.841270	18.5506	4.30704	44.0000	.000000	58/10/31	78/08/23
00515	RESIDUE	DISS-105	C MG/L		1	100.000			100.000	100.000	76/06/08	76/06/08
00530	RESIDUE	TOT NFLT	MG/L		1	180.000			180.000	180.000	76/06/08	76/06/08
00572	BIOMASS	PERPHYTN	G/SQ M		4	5.18275	86.1654	9.28253	19.1000	.236000	76/08/11	80/10/02
00573	BIOMASS	PERPHYTN	DW G/M2		4	6.14925	109.002	10.4404	21.8000	.472001	76/08/11	80/10/02
00600	TOTAL N	N	MG/L		64	1.22687	1.90887	1.38162	9.30000	.030000	75/01/22	81/07/27
00602	DISS.	NITROGEN	MG/L N		21	.692381	.104079	.322613	1.70000	.120000	79/09/25	81/09/10
00605	ORG N	N	MG/L		37	1.30297	2.55476	1.59836	8.90000	.020000	78/01/25	81/09/10
00607	ORG N	DISS-N	MG/L		20	.580500	.044910	.211920	1.10000	.230000	79/10/11	81/09/10
00608	NH3+NH4-	N DISS	MG/L		28	.061428	.001798	.042402	.180000	.000000	79/10/11	83/11/29
				K	2	.060000	.372E-08	.000061	.060000	.060000	82/07/19	82/12/03
				TOT	30	.061333	.001674	.040915	.180000	.000000	79/10/11	83/11/29
00610	NH3+NH4-	N TOTAL	MG/L		35	.042571	.003108	.055749	.280000	.000000	77/11/17	81/09/10
				K	7	.017143	.000357	.018898	.060000	.010000	78/07/25	81/08/18
				TOT	42	.038333	.002722	.052168	.280000	.000000	77/11/17	81/09/10
00615	NO2-N	TOTAL	MG/L		1	.020000			.020000	.020000	81/07/27	81/07/27
00618	NO3-N	DISS	MG/L		3	.013333	.000233	.015275	.030000	.000000	70/07/07	70/08/24
00620	NO3-N	TOTAL	MG/L		1	.070000			.070000	.070000	81/07/27	81/07/27
00623	KJELDL N	DISS	MG/L		43	.518602	.080820	.284288	1.20000	.050000	75/08/26	81/09/10

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08081 COLORADO MOFFAT
110691

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112WRD 14050003000
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INDEX 1101000 010670 02380 0390
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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00624	KJELDL N	SUSP	MG/L		41	.753412	2.26110	1.50370	8.40000	.000000	75/08/26	81/09/10
00625	TOT KJEL	N	MG/L		77	1.23701	2.34046	1.52986	8.90000	.010000	75/01/22	83/11/29
00630	NO2&NO3	N-TOTAL	MG/L		67	.143731	.049075	.221529	1.10000	.000000	75/01/22	81/07/27
				K	7	.097143	.000024	.004880	.100000	.090000	76/06/08	81/09/10
00631	NO2&NO3	N-DISS	MG/L	TOT	74	.139324	.044559	.211091	1.10000	.000000	75/01/22	81/09/10
					72	.152916	.029505	.171771	.900000	.000000	70/09/22	83/03/16
				K	9	.106667	.000400	.020000	.160000	.100000	73/10/03	83/11/29
00650	T PO4	PO4	MG/L	TOT	81	.147777	.026440	.162603	.900000	.000000	70/09/22	83/11/29
00660	ORTHOPO4	PO4	MG/L		3	.693333	1.09363	1.04577	1.90000	.050000	69/12/02	79/04/30
00665	PHOS-TOT		MG/L P		71	.070009	.004345	.065917	.400000	.000000	69/08/04	83/03/16
00666	PHOS-DIS		MG/L P		84	.405472	.611785	.782167	4.50000	.000000	75/01/22	83/11/29
					51	.029019	.001005	.031702	.190000	.000000	77/11/17	83/11/29
				K	2	.010000	.727E-10	.000009	.010000	.010000	75/08/26	81/07/27
00671	PHOS-DIS	ORTHO	MG/L P	TOT	53	.028302	.000980	.031301	.190000	.000000	75/08/26	83/11/29
					51	.021961	.000236	.015365	.070000	.000000	70/10/20	83/11/29
				K	5	.010000	-.582E-10	.000000	.010000	.010000	72/12/06	82/12/03
00680	T ORG C	C	MG/L	TOT	56	.020893	.000226	.015049	.070000	.000000	70/10/20	83/11/29
00681	D ORG C	C	MG/L		37	13.4270	961.731	31.0118	191.000	2.10000	75/02/12	81/09/10
00689	S ORG C	C	MG/L		12	7.61666	10.1524	3.18629	13.0000	3.70000	75/08/26	81/08/18
					10	1.17000	1.35122	1.16242	3.70000	.200000	75/08/26	81/08/18
				L	1	31.0000			31.0000	31.0000	78/03/21	78/03/21
00720	CYANIDE	CN-TOT	MG/L	TOT	11	3.88182	82.1096	9.06144	31.0000	.200000	75/08/26	81/08/18
00900	TOT HARD	CACO3	MG/L	L	1	.010000			.010000	.010000	81/11/19	81/11/19
00902	NC HARD	CACO3	MG/L		372	190.158	7241.77	85.0986	930.000	58.0000	50/12/11	82/12/03
00915	CALCIUM	CA,DISS	MG/L		357	29.3501	2837.48	53.2680	656.000	.000000	50/12/11	81/02/23
00925	MGNSIUM	MG,DISS	MG/L		367	52.9017	536.155	23.1550	301.000	16.0000	50/12/11	83/11/29
00930	SODIUM	NA,DISS	MG/L		366	13.7195	33.6933	5.80459	44.0000	2.90000	50/12/11	83/11/29
00931	SODIUM	ADSBTION	RATIO		367	77.6618	3266.02	57.1491	380.000	5.10000	50/12/11	83/11/29
00932	PERCENT	SODIUM	%		340	2.42581	2.73045	1.65241	14.0000	.200000	51/10/31	82/12/03
00933	NA+K		MG/L		343	41.8950	152.293	12.3407	87.0000	12.0000	50/12/11	82/12/03
00935	PTSSIUM	K,DISS	MG/L		10	75.1000	1448.55	38.0598	140.000	11.0000	51/02/10	80/03/27
00940	CHLORIDE	TOTAL	MG/L		362	3.05019	2.65986	1.63091	10.0000	.600000	50/12/11	83/11/29
00945	SULFATE	SO4-TOT	MG/L		378	27.8594	602.177	24.5393	170.000	1.00000	50/12/11	83/11/29
00950	FLUORIDE	F,DISS	MG/L		376	152.896	14926.7	122.175	885.000	12.0000	50/12/11	83/11/29
00955	SILICA	DISOLVED	MG/L		224	.337940	.014833	.121792	.900000	.000000	50/12/11	83/11/29
01000	ARSENIC	AS,DISS	UG/L		371	16.5170	16.2483	4.03092	31.0000	7.60000	50/12/11	83/11/29
01001	ARSENIC	AS,SUSP	UG/L		33	2.90909	12.0852	3.47638	18.0000	1.00000	75/02/12	83/11/29
					19	6.94737	95.7193	9.78362	35.0000	.000000	75/06/12	82/09/14
				K	2	1.00000	.000000	.000000	1.00000	1.00000	75/02/12	77/03/28
01002	ARSENIC	AS,TOT	UG/L	TOT	21	6.38095	89.3476	9.45239	35.0000	.000000	75/02/12	82/09/14
					26	16.0769	1509.83	38.8566	200.000	2.00000	75/06/12	82/09/14

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01002 ARSENIC	AS,TOT	UG/L	K	1	1.00000			1.00000	1.00000	75/02/12	75/02/12
			TOT	27	15.5185	1460.18	38.2123	200.000	1.00000	75/02/12	82/09/14
01005 BARIUM	BA,DISS	UG/L		19	101.105	7346.21	85.7101	300.000	21.0000	77/12/15	83/11/29
			K	3	100.000	.000000	.000000	100.000	100.000	78/09/27	79/05/22
01006 BARIUM	BA,SUSP	UG/L	TOT	22	100.955	6296.90	79.3530	300.000	21.0000	77/12/15	83/11/29
01007 BARIUM	BA,TOT	UG/L		18	232.222	124536	352.896	1100.00	.000000	77/12/15	82/09/14
				15	373.333	173524	416.562	1200.00	.000000	77/12/15	82/09/14
			K	3	100.000	.000000	.000000	100.000	100.000	78/09/27	79/08/29
01010 BERYLIUM	BE,DISS	UG/L	TOT	18	327.778	153889	392.287	1200.00	.000000	77/12/15	82/09/14
				1	.900000			.900000	.900000	83/11/29	83/11/29
			K	3	.500000	.119E-06	.000345	.500000	.500000	82/12/03	83/09/06
01020 BORON	B,DISS	UG/L	TOT	4	.600000	.040001	.200001	.900000	.500000	82/12/03	83/11/29
01025 CADMIUM	CD,DISS	UG/L		104	74.3898	1999.44	44.7151	220.000	.000000	51/10/31	71/07/27
				3	1.33333	1.33333	1.15470	2.00000	.000000	78/03/21	80/03/27
			K	26	1.53846	.338465	.581777	3.00000	1.00000	75/02/12	83/11/29
			U	5	.000000	.000000	.000000	.000000	.000000	75/08/26	79/03/23
01026 CADMIUM	CD,SUSP	UG/L	TOT	34	1.29412	.638148	.798842	3.00000	.000000	75/02/12	83/11/29
				13	4.69231	116.897	10.8119	39.0000	.000000	75/02/12	80/03/27
			K	7	9.42857	.285726	.534533	10.0000	9.00000	75/06/12	77/03/28
01027 CADMIUM	CD,TOT	UG/L	TOT	20	6.35000	79.2921	8.90461	39.0000	.000000	75/02/12	80/03/27
				10	4.80000	154.178	12.4168	40.0000	.000000	77/07/26	82/03/18
			K	17	11.3529	89.4927	9.46006	20.0000	1.00000	75/02/12	82/09/14
			U	2	.000000	.000000	.000000	.000000	.000000	79/03/23	79/08/29
01030 CHROMIUM	CR,DISS	UG/L	TOT	29	8.31034	115.650	10.7541	40.0000	.000000	75/02/12	82/09/14
				10	12.0000	195.556	13.9841	40.0000	.000000	75/09/17	81/08/18
			K	11	9.45454	62.0727	7.87863	20.0000	1.00000	75/12/08	83/11/29
			U	12	.000000	.000000	.000000	.000000	.000000	75/02/12	79/08/29
01031 CHROMIUM	CR,SUSP	UG/L	TOT	33	6.78788	102.610	10.1297	40.0000	.000000	75/02/12	83/11/29
01034 CHROMIUM	CR,TOT	UG/L		23	22.6087	1429.25	37.8054	170.000	.000000	75/02/12	81/08/18
				20	59.0000	8841.05	94.0269	400.000	.000000	75/09/17	82/09/14
			K	5	20.0000	.000000	.000000	20.0000	20.0000	75/06/12	79/08/29
			U	3	.000000	.000000	.000000	.000000	.000000	75/02/12	78/12/13
01035 COBALT	CO,DISS	UG/L	TOT	28	45.7143	6706.87	81.8955	400.000	.000000	75/02/12	82/09/14
				5	1.60000	.800002	.894428	2.00000	.000000	75/09/17	80/03/27
			K	20	2.50000	.578947	.760886	3.00000	1.00000	75/08/26	83/11/29
			U	9	.000000	.000000	.000000	.000000	.000000	75/02/12	79/05/22
01036 COBALT	CO,SUSP	UG/L	TOT	34	1.70588	1.60784	1.26801	3.00000	.000000	75/02/12	83/11/29
				12	34.1667	3592.52	59.9376	200.000	.000000	75/09/17	80/03/27
			K	8	49.5000	.571429	.755929	50.0000	48.0000	75/02/12	77/09/07
01037 COBALT	CO,TOTAL	UG/L	TOT	20	40.3000	2139.49	46.2546	200.000	.000000	75/02/12	80/03/27
				18	23.8889	2526.69	50.2662	200.000	.000000	75/09/17	82/09/14

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01037	COBALT	CO,TOTAL	UG/L	K	10	90.2000	960.403	30.9904	100.000	2.00000	75/02/12	78/12/13
				U	1	.000000			.000000	.000000	79/08/29	79/08/29
				TOT	29	45.9310	2930.35	54.1327	200.000	.000000	75/02/12	82/09/14
01040	COPPER	CU,DISS	UG/L		30	6.43333	58.4609	7.64597	42.0000	1.00000	75/02/12	83/11/29
				K	4	6.50000	81.0000	9.00000	20.0000	2.00000	77/03/28	79/08/29
				TOT	34	6.44118	58.7389	7.66413	42.0000	1.00000	75/02/12	83/11/29
01041	COPPER	CU,SUSP	UG/L		27	57.7407	14721.7	121.333	620.000	3.00000	75/02/12	82/09/14
				K	2	8.00000	.000000	.000000	8.00000	8.00000	75/08/26	76/12/06
				TOT	29	54.3103	13834.7	117.621	620.000	3.00000	75/02/12	82/09/14
01042	COPPER	CU,TOT	UG/L		24	70.8750	16449.0	128.254	630.000	4.00000	75/02/12	82/09/14
				K	5	20.0000	.000000	.000000	20.0000	20.0000	75/06/12	77/03/28
				TOT	29	62.1034	13894.2	117.874	630.000	4.00000	75/02/12	82/09/14
01044	IRON	FE,SUSP	UG/L		14	17756.4	.410E+09	20258.3	59299.9	1300.00	75/08/26	82/05/11
01045	IRON	FE,TOT	UG/L		113	4199.64	.186E+09	13645.3	85000.0	.000000	50/12/11	82/09/14
01046	IRON	FE,DISS	UG/L		62	111.435	28159.5	167.808	980.000	6.00000	70/11/23	83/11/29
				K	7	9.00000	7.00000	2.64575	10.0000	3.00000	75/08/26	82/09/14
				TOT	69	101.043	26231.9	161.963	980.000	3.00000	70/11/23	83/11/29
01049	LEAD	PB,DISS	UG/L		25	3.40000	10.2500	3.20156	15.0000	.000000	75/02/12	83/09/06
				K	6	1.50000	.300000	.547722	2.00000	1.00000	76/09/03	83/11/29
				U	3	.000000	.000000	.000000	.000000	.000000	75/08/26	79/08/29
				TOT	34	2.76471	8.79145	2.96504	15.0000	.000000	75/02/12	83/11/29
01050	LEAD	PB,SUSP	UG/L		20	69.7000	39310.2	198.268	900.000	.000000	75/09/17	82/05/11
				K	7	97.7142	2.91667	1.70782	100.000	96.0000	75/02/12	77/09/07
				TOT	27	76.9629	28883.9	169.953	900.000	.000000	75/02/12	82/05/11
01051	LEAD	PB,TOT	UG/L		20	66.9500	39184.5	197.951	900.000	2.00000	76/06/08	82/09/14
				K	9	200.000	.000000	.000000	200.000	200.000	75/02/12	77/09/07
				TOT	29	108.241	30513.6	174.681	900.000	2.00000	75/02/12	82/09/14
01054	MANGNESE	MN,SUSP	UG/L		27	1135.44	.135E+08	3676.75	19000.0	7.00000	75/02/12	82/09/14
01055	MANGNESE	MN	UG/L		27	461.481	762758	873.360	4000.00	10.0000	75/02/12	82/09/14
				K	1	10.0000			10.0000	10.0000	76/09/03	76/09/03
				TOT	28	445.357	741788	861.271	4000.00	10.0000	75/02/12	82/09/14
01056	MANGNESE	MN,DISS	UG/L		44	21.6818	740.130	27.2053	150.000	.000000	71/08/24	83/11/29
				K	26	9.38461	4.80617	2.19230	10.0000	1.00000	72/11/09	82/05/11
				TOT	70	17.1143	498.799	22.3338	150.000	.000000	71/08/24	83/11/29
01060	MOLY	MO,DISS	UG/L	K	4	10.0000	.000000	.000000	10.0000	10.0000	82/12/03	83/11/29
01065	NICKEL	NI,DISS	UG/L		14	4.57143	48.2637	6.94721	28.0000	1.00000	79/10/11	83/11/29
				K	1	1.00000			1.00000	1.00000	82/03/18	82/03/18
				U	1	.000000			.000000	.000000	75/08/26	75/08/26
				TOT	16	4.06250	43.7958	6.61784	28.0000	.000000	75/08/26	83/11/29
01066	NICKEL	NI,SUSP	UG/L		10	23.8000	1548.85	39.3554	99.0000	.000000	79/10/11	82/09/14
				K	1	50.0000			50.0000	50.0000	75/08/26	75/08/26

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01066	NICKEL	NI,SUSP	UG/L	TOT	11	26.1818	1456.36	38.1623	99.0000	.000000	75/08/26	82/09/14
01067	NICKEL	NI,TOTAL	UG/L		11	28.9091	1297.69	36.0235	100.000	4.00000	79/10/11	82/09/14
				K	1	50.0000			50.0000	50.0000	75/08/26	75/08/26
				TOT	12	30.6667	1216.79	34.8825	100.000	4.00000	75/08/26	82/09/14
01075	SILVER	AG,DISS	UG/L		9	.222222	.194444	.440958	1.00000	.000000	79/10/11	83/03/16
				K	6	1.00000	.000000	.000000	1.00000	1.00000	81/11/19	83/11/29
				U	7	.000000	.000000	.000000	.000000	.000000	77/12/15	79/08/29
				TOT	22	.363636	.242424	.492366	1.00000	.000000	77/12/15	83/11/29
01076	SILVER	AG,SUSP	UG/L		14	.142857	.131868	.363137	1.00000	.000000	77/12/15	81/08/18
01077	SILVER	AG,TOT	UG/L		10	.000000	.000000	.000000	.000000	.000000	79/10/11	81/08/18
				K	6	1.33333	.266668	.516399	2.00000	1.00000	78/03/21	82/09/14
				U	5	.000000	.000000	.000000	.000000	.000000	77/12/15	79/08/29
				TOT	21	.380952	.447619	.669043	2.00000	.000000	77/12/15	82/09/14
01080	STRONTUM	SR,DISS	UG/L		4	310.000	8800.00	93.8083	410.000	190.000	82/12/03	83/11/29
01085	VANADIUM	V,DISS	UG/L		1	2.00000			2.00000	2.00000	75/08/26	75/08/26
				K	4	6.00000	.000000	.000000	6.00000	6.00000	82/12/03	83/11/29
				TOT	5	5.20000	3.20002	1.78886	6.00000	2.00000	75/08/26	83/11/29
01090	ZINC	ZN,DISS	UG/L		16	34.9375	1453.40	38.1234	140.000	5.00000	75/02/12	83/11/29
				K	14	11.0000	70.7692	8.41244	20.0000	3.00000	75/08/26	82/05/11
				U	4	.000000	.000000	.000000	.000000	.000000	75/12/08	78/09/27
				TOT	34	20.9706	878.575	29.6408	140.000	.000000	75/02/12	83/11/29
01091	ZINC	ZN,SUSP	UG/L		22	174.045	165859	407.258	1900.00	.000000	75/02/12	82/09/14
01092	ZINC	ZN,TOT	UG/L		25	188.800	143919	379.367	1900.00	20.0000	75/02/12	82/09/14
				K	3	20.0000	.000000	.000000	20.0000	20.0000	76/09/03	79/08/29
				U	1	.000000			.000000	.000000	76/06/08	76/06/08
				TOT	29	164.828	127090	356.497	1900.00	.000000	75/02/12	82/09/14
01106	ALUMINUM	AL,DISS	UG/L		3	96.6667	13433.3	115.902	230.000	20.0000	82/12/03	83/09/06
				K	1	10.0000			10.0000	10.0000	83/11/29	83/11/29
				TOT	4	75.0000	10833.3	104.083	230.000	10.0000	82/12/03	83/11/29
01130	LITHIUM	LI,DISS	UG/L		4	21.7500	13.5833	3.68556	26.0000	17.0000	82/12/03	83/11/29
01145	SELENIUM	SE,DISS	UG/L		23	1.00000	.818182	.904534	4.00000	.000000	75/09/17	83/11/29
				K	11	1.00000	.000000	.000000	1.00000	1.00000	75/02/12	82/12/03
				TOT	34	1.00000	.545454	.738549	4.00000	.000000	75/02/12	83/11/29
01146	SELENIUM	SE,SUSP	UG/L		25	.480000	.760000	.871780	3.00000	.000000	75/02/12	82/09/14
01147	SELENIUM	SE,TOT	UG/L		19	1.42105	1.92398	1.38708	5.00000	.000000	75/09/17	82/09/14
				K	10	1.00000	.000000	.000000	1.00000	1.00000	75/02/12	81/11/19
				TOT	29	1.27586	1.27833	1.13063	5.00000	.000000	75/02/12	82/09/14
01330	ODOR	ATMOSPH	SEVERITY		31	.419355	.318280	.564163	2.00000	.000000	75/05/12	78/01/25
01345	FLOATING	DEBRIS	SEVERITY		11	1.09091	.090909	.301512	2.00000	1.00000	76/02/11	83/01/25
03515	BETA-D	AS CS137	PC/L		1	1.60000			1.60000	1.60000	76/06/08	76/06/08
03516	BETA-S	AS CS137	PC/L		1	8.30000			8.30000	8.30000	76/06/08	76/06/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09260000
40 32 50.0 108 25 25.0 2
LITTLE SNAKE RIVER NEAR LILY, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050003000
0000 CLASS 00 CSN-RSP 0029557-0269864

INDEX 1101000 010670 02380 0390
MILES 0929.90 0342.20 048.40 010.00

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
09511	RA-226-D	RADON MT	PC/L	K	1	.010000			.010000	.010000	76/06/08	76/06/08
31501	TOT COLI	MFIMENDO	/100ML		7	346.999	170799	413.278	1100.00	43.9999	75/11/18	77/06/28
				B	9	291.444	415988	644.971	2000.00	9.99999	75/01/22	77/12/15
				L	1	1600.00			1600.00	1600.00	77/09/07	77/09/07
31616	FEC COLI	MFM-FCBR	/100ML	TOT	17	391.293	369821	608.129	2000.00	9.99999	75/01/22	77/12/15
					7	184.571	44920.8	211.945	599.999	40.0000	75/09/17	76/09/03
				B	6	30.1666	918.164	30.3012	74.9999	.999999	75/02/12	76/05/13
				K	2	.999999	.000000	.000000	.999999	.999999	75/01/22	75/08/13
31625	FEC COLI	M-FCAGAR	/100 ML	TOT	15	98.3331	26643.0	163.227	599.999	.999999	75/01/22	76/09/03
					18	447.389	585271	765.030	3200.00	30.0000	76/10/23	83/09/06
				B	26	51.8460	6335.47	79.5957	380.000	4.00000	77/02/25	84/02/28
				K	5	5.80000	64.1999	8.01248	20.0000	1.00000	79/02/20	82/03/18
31673	FECSTREP	MFKFAGAR	/100ML	TOT	49	192.449	249299	499.298	3200.00	1.00000	76/10/23	84/02/28
					32	1779.50	.314E+08	5604.10	31000.0	20.0000	77/02/25	84/02/28
				B	14	1816.14	.445E+08	6672.80	25000.0	4.00000	78/12/13	83/11/29
31679	FECSTREP	MF M-ENT	/100ML	TOT	46	1790.65	.344E+08	5873.55	31000.0	4.00000	77/02/25	84/02/28
					9	290.888	80016.6	282.872	939.999	69.9999	75/09/17	76/10/23
				B	9	38.4443	671.029	25.9042	99.9998	9.99999	75/01/22	76/12/06
32226	CHL B	PERIPHTN	MG/M2	TOT	18	164.666	54839.8	234.179	939.999	9.99999	75/01/22	76/12/06
32228	CHL A	PERIPHTN	MG/M2		1	.000000			.000000	.000000	76/08/11	76/08/11
39250	NAPTHAL	ENES, PC	. UG/L		1	.000000			.000000	.000000	76/08/11	76/08/11
39330	ALDRIN		TOT UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39340	GAMMABHC	LINDANE	TOT.UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39350	CHLRDANE	TECH&MET	TOT UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39360	DDD	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39365	DDE	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39370	DDT	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39380	DIELDRIN		TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39390	ENDRIN		TOT UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39398	ETHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39400	TOXAPHEN		TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39410	HEPTCHLR		TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39420	HPCHLREP		TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39516	PCBS	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39530	MALATHN	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39540	PARATHN	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39570	DIAZINON	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39600	MPARATHN	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39730	2,4-D	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39740	2,4,5-T	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08

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RETRIEVAL FOR DAVE RUITER

09260000
40 32 50.0 108 25 25.0 2
LITTLE SNAKE RIVER NEAR LILY, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050003000
0000 CLASS 00 CSN-RSP 0029557-0269864

INDEX 1101000 010670 02380 0390
MILES 0929.90 0342.20 048.40 010.00

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39760	SILVEX	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/17	76/06/08
39786	TRITHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39790	MTRTHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
60050	ALGAE	TOTAL	/ML		53	3954.77	.443E+08	6657.61	28000.0	.000000	75/01/22	81/09/10
70300	RESIDUE	DISS-180 C	MG/L		323	454.845	58489.9	241.847	1600.00	96.0000	50/12/11	83/11/29
70301	DISS SOL	SUM	MG/L		137	400.883	44216.9	210.278	1410.00	91.0000	69/09/08	82/12/03
70302	DISS SOL	TONS/DAY			357	296.322	170558	412.987	3320.00	.063000	50/12/11	82/12/03
70303	DISS SOL	TONS PER	ACRE-FT		364	.874355	26.1630	5.11497	98.0000	.130000	50/12/11	82/12/03
70331	SUSP SED	PARTSIZE	%<.062MM		67	60.7968	1076.84	32.8152	100.0000	1.00000	60/03/23	82/09/26
70332	SUSP SED	PARTSIZE	%<.125MM		8	78.3724	1103.59	33.2202	98.0000	.980000	60/03/23	79/03/24
70333	SUSP SED	PARTSIZE	%<.250MM		8	96.1248	26.7321	5.17031	100.0000	86.0000	60/03/23	79/03/24
70334	SUSP SED	PARTSIZE	%<.500MM		7	98.7141	4.60417	2.14573	100.0000	94.0000	60/03/23	79/03/24
70335	SUSP SED	PARTSIZE	%<1.00MM		4	77.4999	2025.01	45.0001	100.0000	10.00000	60/03/23	61/05/12
70337	SUSP SED	PARTSIZE	%<.002MM		75	50.9278	293.876	17.1428	82.0000	12.0000	58/05/15	83/03/16
70338	SUSP SED	PARTSIZE	%<.004MM		144	63.0694	561.726	23.7008	97.0000	2.00000	58/04/30	83/03/16
70339	SUSP SED	PARTSIZE	%<.008MM		9	52.7777	1141.46	33.7854	97.0000	19.0000	58/05/15	61/06/21
70340	SUSP SED	PARTSIZE	%<.016MM		144	80.6948	566.626	23.8039	100.0000	20.0000	58/04/30	83/03/16
70341	SUSP SED	PARTSIZE	%<.031MM		20	81.0998	677.151	26.0221	100.0000	31.0000	58/04/30	63/08/29
70342	SUSP SED	PARTSIZE	%<.062MM		126	87.4349	319.874	17.8850	100.0000	10.00000	58/04/30	83/03/16
70343	SUSP SED	PARTSIZE	%<.125MM		80	88.6958	154.555	12.4320	100.0000	39.8000	58/04/30	83/03/16
70344	SUSP SED	PARTSIZE	%<.250MM		76	94.6641	77.3408	8.79436	100.0000	45.6000	58/04/30	83/03/16
70345	SUSP SED	PARTSIZE	%<.500MM		61	98.4741	16.1292	4.01611	100.000	77.0000	58/04/30	83/03/16
70346	SUSP SED	PARTSIZE	%<1.00MM		22	99.7907	.735119	.857391	100.000	96.0000	58/04/30	83/03/16
70347	SUSP SED	PARTSIZE	%<2.00MM		1	100.0000			100.0000	100.0000	81/05/19	81/05/19
70950	BIOMASS-	CHLRATIO	PERIUNIT		2	744.000	97682.0	312.541	965.000	523.000	80/08/28	80/10/02
70957	CHLRPHYL	A-PERIPH	CHFLUG/L		3	1.88333	8.11244	2.84823	5.16000	.000000	78/05/22	80/10/02
70958	CHLRPHYL	B-PERIPH	CHFLUG/L		3	.000000	.000000	.000000	.000000	.000000	78/05/22	80/10/02
71845	AMMONIA	TOT-NH4	MG/L		17	.021765	.000940	.030667	.110000	.000000	79/04/30	81/01/19
71846	AMMONIA	DISS-NH4	MG/L		28	.080714	.002851	.053398	.230000	.000000	79/10/11	83/03/16
71850	NITRATE	TOT-NO3	MG/L		227	.977086	.346100	.588303	3.80000	.000000	50/12/11	59/09/30
71851	NITRATE	DISS-NO3	MG/L		17	1.21176	3.84736	1.96147	8.40000	.000000	69/08/04	70/08/24
71886	TOTAL P	AS PO4	MG/L		35	1.19485	6.34519	2.51897	12.0000	.000000	79/04/30	83/11/29
71887	TOTAL N	AS NO3	MG/L		64	5.40686	36.8216	6.06808	41.0000	.130000	75/01/22	81/07/27
71890	MERCURY	HG,DISS	UG/L		9	.033333	.002500	.050000	.100000	.000000	79/10/11	82/12/03
				K	25	.292000	.041600	.203960	.500000	.100000	75/02/12	83/11/29
				TOT	34	.223529	.044278	.210423	.500000	.000000	75/02/12	83/11/29
71895	MERCURY	HG,SUSP	UG/L		23	.069565	.022213	.149042	.700000	.000000	75/02/12	82/03/18
71900	MERCURY	HG,TOTAL	UG/L		12	.133333	.035152	.187488	.700000	.000000	77/07/26	82/09/14
				K	15	.366666	.038095	.195180	.500000	.100000	75/02/12	79/08/29
				TOT	27	.262963	.049345	.222137	.700000	.000000	75/02/12	82/09/14
72000	LND SURF	DATUM	FT		234	5685.00	-.896E+03	.000000	5685.00	5685.00	50/12/11	59/09/30

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09260000
40 32 50.0 108 25 25.0 2
LITTLE SNAKE RIVER NEAR LILY, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050003000
0000 CLASS 00 CSN-RSP 0029557-0269864

INDEX 1101000 010670 02380 0390
MILES 0929.90 0342.20 048.40 010.00

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
72015 TOP DPTH	OF SMPLE	FT		1	.000000			.000000	.000000	77/08/10	77/08/10
80010 U-DISS.	DIR.FLR.	PC/L		1	.600000			.600000	.600000	76/06/08	76/06/08
80030 ALPHA-D	AS U-NAT	UG/L	K	1	1.60000			1.60000	1.60000	76/06/08	76/06/08
80040 ALPHA-S	AS U-NAT	UG/L		1	15.0000			15.0000	15.0000	76/06/08	76/06/08
80050 BETA-D	AS SR-Y-	90, PC/L		1	1.20000			1.20000	1.20000	76/06/08	76/06/08
80060 BETA-S	AS SR-Y-	90, PC/L		1	6.70000			6.70000	6.70000	76/06/08	76/06/08
80154 SUSP SED	CONC	MG/L		484	5308.63	.106E+09	10322.4	68600.0	14.0000	58/05/15	83/09/25
80155 SUSP SED	DISCHARG	TONS/DAY		427	7830.96	.255E+09	15976.0	158000	.050000	58/05/15	82/09/26
80164 BED MATL	PARTSIZE	%<.062MM		1	.000000			.000000	.000000	83/09/06	83/09/06
82068 POTAS-40	K-40,DIS	PC/LITER		7	1.78571	.924767	.961648	3.60000	.700000	81/01/19	81/07/27

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09259700
41 00 11.0 107 55 11.0 2
LITTLE SNAKE RIVER NEAR BAGGS, WY.
56037 WYOMING SWEETWATER
110691

/TYPA/AMBNT/STREAM

112WRD 14050003000
0000 CLASS 00 CSN-RSP 0016320-0269781

INDEX 1101000 010670 02380 0390
MILES 0929.90 0342.20 048.40 072.90

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		225	9.58930	65.3631	8.08474	26.5000	.000000	61/10/04	80/09/08
00020	AIR	TEMP	CENT		1	18.0000			18.0000	18.0000	77/10/14	77/10/14
00028	ANALYZE	AGENCY	CODE		8	80020.0	-.117E+04	.000000	80020.0	80020.0	78/07/20	79/10/25
00030	INCDT LT	SURF	C/SQCM/D		1	10.6000			10.6000	10.6000	70/02/25	70/02/25
00041	WEATHER	WMO CODE	4501		1	.000000			.000000	.000000	75/08/29	75/08/29
00060	STREAM	FLOW	CFS		99	684.977	1428709	1195.29	4800.00	.200000	65/07/29	73/05/23
00061	STREAM	FLOW,	INST-CFS		39	1080.71	2207664	1485.82	4700.00	.689999	74/03/20	80/09/08
00070	TURB	JKSN	JTU		1	150.000			150.000	150.000	77/10/14	77/10/14
00095	CNDUCTVY	AT 25C	MICROMHO		109	508.815	150425	387.846	2960.00	100.0000	65/07/29	80/09/08
00300	DO		MG/L		25	9.18799	2.01698	1.42020	11.9000	5.60000	69/08/26	80/09/08
00400	PH		SU		110	7.93173	.113281	.336573	8.80000	7.10000	65/07/29	80/09/08
00405	CO2		MG/L		11	3.62727	6.69421	2.58732	10.00000	1.00000	72/10/26	80/09/08
00410	T ALK	CACO3	MG/L		114	138.236	3110.78	55.7743	260.000	35.0000	65/10/01	80/09/08
00440	HCO3 ION	HCO3	MG/L		116	167.723	4456.47	66.7568	320.000	43.0000	65/07/29	80/09/08
00445	CO3 ION	CO3	MG/L		116	.465517	4.85966	2.20446	19.0000	.000000	65/07/29	80/09/08
00515	RESIDUE	DISS-105	C MG/L		1	580.000			580.000	580.000	77/10/14	77/10/14
00530	RESIDUE	TOT NFLT	MG/L		1	200.000			200.000	200.000	77/10/14	77/10/14
00600	TOTAL N	N	MG/L		1	.400000			.400000	.400000	75/08/29	75/08/29
00605	ORG N	N	MG/L		1	.720001			.720001	.720001	77/10/14	77/10/14
00607	ORG N	DISS-N	MG/L		1	.520000			.520000	.520000	77/10/14	77/10/14
00608	NH3+NH4-	N DISS	MG/L		1	.060000			.060000	.060000	77/10/14	77/10/14
00610	NH3+NH4-	N TOTAL	MG/L		1	.030000			.030000	.030000	77/10/14	77/10/14
00618	NO3-N	DISS	MG/L		30	.074666	.007171	.084679	.360000	.000000	72/10/26	79/08/16
00623	KJELDL N	DISS	MG/L		2	.440000	.039200	.197990	.580000	.300000	75/08/29	77/10/14
00624	KJELDL N	SUSP	MG/L		2	.125000	.004050	.063640	.170000	.080000	75/08/29	77/10/14
00625	TOT KJEL	N	MG/L		2	.565000	.068451	.261631	.750001	.380000	75/08/29	77/10/14
00630	NO2&NO3	N-TOTAL	MG/L		1	.020000			.020000	.020000	75/08/29	75/08/29
00631	NO2&NO3	N-DISS	MG/L		10	.076000	.006316	.079470	.210000	.000000	75/08/29	80/09/08
00660	ORTHOPO4	PO4	MG/L		1	.000000			.000000	.000000	77/10/14	77/10/14
00665	PHOS-TOT		MG/L P		36	.140555	.052622	.229396	1.20000	.010000	74/03/20	80/09/08
				K	2	.010000	-.145E-10	.000000	.010000	.010000	74/05/21	74/08/22
				TOT	38	.133684	.050651	.225057	1.20000	.010000	74/03/20	80/09/08
00666	PHOS-DIS		MG/L P		1	.010000			.010000	.010000	77/10/14	77/10/14
				K	1	.010000			.010000	.010000	75/08/29	75/08/29
				TOT	2	.010000	.727E-10	.000009	.010000	.010000	75/08/29	77/10/14
00671	PHOS-DIS	ORTHO	MG/L P	K	1	.010000			.010000	.010000	77/10/14	77/10/14
00681	D ORG C	C	MG/L		1	12.0000			12.0000	12.0000	75/08/29	75/08/29
00689	S ORG C	C	MG/L		1	.200000			.200000	.200000	75/08/29	75/08/29
00900	TOT HARD	CACO3	MG/L		116	143.723	3784.58	61.5190	404.000	39.0000	65/07/29	80/09/08
00902	NC HARD	CACO3	MG/L		116	9.58621	412.142	20.3013	178.000	.000000	65/07/29	80/09/08
00915	CALCIUM	CA,DISS	MG/L		116	38.1833	193.136	13.8973	78.0000	9.40000	65/07/29	80/09/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09259700
41 00 11.0 107 55 11.0 2
LITTLE SNAKE RIVER NEAR BAGGS, WY.
56037 WYOMING SWEETWATER
110691

/TYPA/AMBNT/STREAM

112WRD 14050003000
0000 CLASS 00 CSN-RSP 0016320-0269781

INDEX 1101000 010670 02380 0390
MILES 0929.90 0342.20 048.40 072.90

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00925 MGNSIUM	MG,DISS	MG/L		116	11.6370	55.2182	7.43089	51.0000	.300000	65/07/29	80/09/08
00930 SODIUM	NA,DISS	MG/L		116	44.3298	5005.62	70.7504	570.000	3.00000	65/07/29	80/09/08
00931 SODIUM	ADSBTION	RATIO		116	1.41206	3.05389	1.74754	12.0000	.200000	65/07/29	80/09/08
00932 PERCENT	SODIUM	%		114	30.5088	175.913	13.2632	81.0000	12.0000	65/10/01	80/09/08
00935 PTSSIUM	K,DISS	MG/L		116	2.30861	1.16442	1.07908	6.70000	.500000	65/07/29	80/09/08
00940 CHLORIDE	TOTAL	MG/L		116	17.2646	1502.68	38.7644	294.000	.000000	65/07/29	80/09/08
00945 SULFATE	SO4-TOT	MG/L		115	77.0487	11221.8	105.933	909.000	6.60000	65/07/29	80/09/08
00950 FLUORIDE	F,DISS	MG/L		114	.332452	.023630	.153722	.900000	.000000	65/07/29	80/09/08
			K	2	.100000	-.372E-08	.000000	.100000	.100000	73/05/23	76/05/13
			TOT	116	.328444	.024143	.155380	.900000	.000000	65/07/29	80/09/08
00955 SILICA	DISOLVED	MG/L		116	13.3844	21.1362	4.59741	26.0000	1.70000	65/07/29	80/09/08
01000 ARSENIC	AS,DISS	UG/L		1	1.00000			1.00000	1.00000	77/10/14	77/10/14
01003 ARSENIC	SEDMG/KG	DRY WGT		1	4.00000			4.00000	4.00000	75/08/29	75/08/29
01005 BARIUM	BA,DISS	UG/L	K	1	100.000			100.000	100.000	77/10/14	77/10/14
01020 BORON	B,DISS	UG/L		80	58.8746	2030.40	45.0600	230.000	.000000	65/07/29	77/10/14
01025 CADMIUM	CD,DISS	UG/L	K	1	2.00000			2.00000	2.00000	77/10/14	77/10/14
			U	1	.000000			.000000	.000000	75/08/29	75/08/29
			TOT	2	1.00000	2.00000	1.41421	2.00000	.000000	75/08/29	77/10/14
01026 CADMIUM	CD,SUSP	UG/L	K	1	10.0000			10.0000	10.0000	75/08/29	75/08/29
01027 CADMIUM	CD,TOT	UG/L	K	1	20.0000			20.0000	20.0000	75/08/29	75/08/29
01029 CHROMIUM	SEDMG/KG	DRY WGT		1	25.0000			25.0000	25.0000	75/08/29	75/08/29
01030 CHROMIUM	CR,DISS	UG/L		1	5.00000			5.00000	5.00000	77/10/14	77/10/14
01035 COBALT	CO,DISS	UG/L	U	1	.000000			.000000	.000000	75/08/29	75/08/29
01036 COBALT	CO,SUSP	UG/L	K	1	50.0000			50.0000	50.0000	75/08/29	75/08/29
01037 COBALT	CO,TOTAL	UG/L	K	1	100.000			100.000	100.000	75/08/29	75/08/29
01040 COPPER	CU,DISS	UG/L		2	2.00000	.000000	.000000	2.00000	2.00000	75/08/29	77/10/14
01041 COPPER	CU,SUSP	UG/L	K	1	8.00000			8.00000	8.00000	75/08/29	75/08/29
01042 COPPER	CU,TOT	UG/L	K	1	20.0000			20.0000	20.0000	75/08/29	75/08/29
01043 COPPER	SEDMG/KG	DRY WGT		1	7.99999			7.99999	7.99999	75/08/29	75/08/29
01044 IRON	FE,SUSP	UG/L		1	59.9999			59.9999	59.9999	75/08/29	75/08/29
01045 IRON	FE,TOT	UG/L		30	117.333	11951.3	109.322	400.000	.000000	68/11/06	75/08/29
01046 IRON	FE,DISS	UG/L		8	143.750	10683.9	103.363	310.000	20.0000	69/02/05	77/10/14
01049 LEAD	PB,DISS	UG/L		1	7.00000			7.00000	7.00000	77/10/14	77/10/14
			U	1	.000000			.000000	.000000	75/08/29	75/08/29
			TOT	2	3.50000	24.5000	4.94975	7.00000	.000000	75/08/29	77/10/14
01050 LEAD	PB,SUSP	UG/L	K	1	100.000			100.000	100.000	75/08/29	75/08/29
01051 LEAD	PB,TOT	UG/L	K	1	200.000			200.000	200.000	75/08/29	75/08/29
01052 LEAD	SEDMG/KG	DRY WGT		1	100.000			100.000	100.000	75/08/29	75/08/29
01054 MANGNESE	MN,SUSP	UG/L		1	30.0000			30.0000	30.0000	75/08/29	75/08/29
01055 MANGNESE	MN	UG/L		1	30.0000			30.0000	30.0000	75/08/29	75/08/29
01056 MANGNESE	MN,DISS	UG/L		1	20.0000			20.0000	20.0000	77/10/14	77/10/14

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

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41 00 11.0 107 55 11.0 2
LITTLE SNAKE RIVER NEAR BAGGS, WY.
56037 WYOMING SWEETWATER
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/TYPA/AMBNT/STREAM

112WRD 14050003000
0000 CLASS 00 CSN-RSP 0016320-0269781

INDEX 1101000 010670 02380 0390
MILES 0929.90 0342.20 048.40 072.90

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01056	MANGNESE	MN,DISS	UG/L	K	1	10.0000			10.0000	10.0000	75/08/29	75/08/29
				TOT	2	15.0000	50.0000	7.07107	20.0000	10.0000	75/08/29	77/10/14
01060	MOLY	MO,DISS	UG/L		1	3.00000			3.00000	3.00000	77/10/14	77/10/14
01065	NICKEL	NI,DISS	UG/L		1	2.00000			2.00000	2.00000	75/08/29	75/08/29
01066	NICKEL	NI,SUSP	UG/L	K	1	48.0000			48.0000	48.0000	75/08/29	75/08/29
01067	NICKEL	NI,TOTAL	UG/L	K	1	50.0000			50.0000	50.0000	75/08/29	75/08/29
01068	NICKEL	SEDMG/KG	DRY WGT		1	5.00000			5.00000	5.00000	75/08/29	75/08/29
01075	SILVER	AG,DISS	UG/L	U	1	.000000			.000000	.000000	77/10/14	77/10/14
01085	VANADIUM	V,DISS	UG/L		1	.400000			.400000	.400000	75/08/29	75/08/29
01090	ZINC	ZN,DISS	UG/L	K	2	20.0000	.000000	.000000	20.0000	20.0000	75/08/29	77/10/14
01091	ZINC	ZN,SUSP	UG/L		1	.000000			.000000	.000000	75/08/29	75/08/29
01092	ZINC	ZN,TOT	UG/L	K	1	20.0000			20.0000	20.0000	75/08/29	75/08/29
01098	ANTIMONY	SEDMG/KG	DRY WGT		1	3.00000			3.00000	3.00000	75/08/29	75/08/29
01106	ALUMINUM	AL,DISS	UG/L		1	20.0000			20.0000	20.0000	77/10/14	77/10/14
01145	SELENIUM	SE,DISS	UG/L		1	1.00000			1.00000	1.00000	77/10/14	77/10/14
				K	1	1.00000			1.00000	1.00000	75/08/29	75/08/29
				TOT	2	1.00000	.000000	.000000	1.00000	1.00000	75/08/29	77/10/14
01146	SELENIUM	SE,SUSP	UG/L		1	.000000			.000000	.000000	75/08/29	75/08/29
01147	SELENIUM	SE,TOT	UG/L	K	1	1.00000			1.00000	1.00000	75/08/29	75/08/29
01170	FE MUD	DRY WGT	MG/KG-FE		1	7200.00			7200.00	7200.00	75/08/29	75/08/29
03515	BETA-D	AS CS137	PC/L		1	11.0000			11.0000	11.0000	77/10/14	77/10/14
03516	BETA-S	AS CS137	PC/L		1	11.0000			11.0000	11.0000	77/10/14	77/10/14
09510	RA-226-D	PLCHT CT	PC/L	K	1	.100000			.100000	.100000	77/10/14	77/10/14
22703	U-NAT	DISOLVED	UG/L		1	3.90000			3.90000	3.90000	77/10/14	77/10/14
34609	24DMPHEN	SEDUG/KG	DRY WGT		3	.000000	.000000	.000000	.000000	.000000	79/10/25	80/09/08
39730	2,4-D	WHL SMPL	UG/L		11	.002727	.000082	.009045	.030000	.000000	78/06/09	80/09/08
39731	2,4-D	MUD	UG/KG		11	.000000	.000000	.000000	.000000	.000000	78/06/09	80/09/08
39740	2,4,5-T	WHL SMPL	UG/L		11	.000000	.000000	.000000	.000000	.000000	78/06/09	80/09/08
39741	2,4,5-T	MUD	UG/KG		11	.000000	.000000	.000000	.000000	.000000	78/06/09	80/09/08
39760	SILVEX	WHL SMPL	UG/L		11	.004545	.000227	.015076	.050000	.000000	78/06/09	80/09/08
39761	SILVEX	MUD	UG/KG		11	.000000	.000000	.000000	.000000	.000000	78/06/09	80/09/08
60050	ALGAE	TOTAL	/ML		2	1190.00	1008200	1004.09	1900.00	480.000	76/05/30	77/10/14
70300	RESIDUE	DISS-180 C	MG/L		79	334.100	80054.0	282.938	2050.00	88.0000	65/07/29	73/05/23
70301	DISS SOL	SUM	MG/L		86	259.452	22354.1	149.513	825.000	58.0000	67/10/10	80/09/08
70302	DISS SOL	TONS/DAY			115	291.577	132530	364.046	1600.00	.470000	65/07/29	80/09/08
70303	DISS SOL	TONS PER	ACRE-FT		116	.401718	.115001	.339119	2.79000	.080000	65/07/29	80/09/08
70331	SUSP SED	PARTSIZE	%<.062MM		1	99.9998			99.9998	99.9998	77/10/14	77/10/14
70940	BENTHIC	INVERT	G/SQ.M		1	.248000			.248000	.248000	77/10/14	77/10/14
71846	AMMONIA	DISS-NH4	MG/L		1	.080000			.080000	.080000	77/10/14	77/10/14
71851	NITRATE	DISS-NO3	MG/L		107	.299063	.106887	.326935	1.60000	.000000	65/07/29	79/08/16
71870	BROMIDE	BR	MG/L		2	.365000	.002450	.049497	.400000	.330000	65/07/29	65/08/26

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

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INDEX 1101000 010670 02380 0390
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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71885	IRON	FE	UG/L		11	98.1819	24656.4	157.024	440.000	.000000	65/07/29	66/05/25
71887	TOTAL N	AS NO3	MG/L		1	1.80000			1.80000	1.80000	75/08/29	75/08/29
71890	MERCURY	HG,DISS	UG/L	K	2	.300000	.080000	.282843	.500000	.100000	75/08/29	77/10/14
71895	MERCURY	HG,SUSP	UG/L		1	.000000			.000000	.000000	75/08/29	75/08/29
71900	MERCURY	HG,TOTAL	UG/L	K	1	.500000			.500000	.500000	75/08/29	75/08/29
71921	MERCURY	SEDMG/KG	DRY WGT		1	.040000			.040000	.040000	75/08/29	75/08/29
80030	ALPHA-D	AS U-NAT	UG/L		1	15.0000			15.0000	15.0000	77/10/14	77/10/14
80040	ALPHA-S	AS U-NAT	UG/L		1	13.0000			13.0000	13.0000	77/10/14	77/10/14
80050	BETA-D	AS SR-Y-	90, PC/L		1	9.50000			9.50000	9.50000	77/10/14	77/10/14
80060	BETA-S	AS SR-Y-	90, PC/L		1	10.0000			10.0000	10.0000	77/10/14	77/10/14
80154	SUSP SED	CONC	MG/L		1	244.000			244.000	244.000	77/10/14	77/10/14
82183	2,4-DP	DICLPROP	TOT UG/L		3	.000000	.000000	.000000	.000000	.000000	79/10/25	80/09/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09251000
40 30 10.0 108 01 45.0 2
YAMPA RIVER NEAR MAYBELL, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050002000
0000 CLASS 00 CSN-RSP 0016319-0269675

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 077.20

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00008	LAB	IDENT.	NUMBER		1	760765			760765	760765	75/09/16	75/09/16
00010	WATER	TEMP	CENT		412	9.47179	63.6766	7.97976	28.0000	.000000	59/08/12	83/12/01
00025	BAROMTRC	PRESSURE	MM OF HG		4	613.500	16.3333	4.04145	617.000	610.000	82/12/03	83/12/01
00027	COLLECT	AGENCY	CODE		3	1028.00	.000000	.000000	1028.00	1028.00	83/07/20	83/12/01
00028	ANALYZE	AGENCY	CODE		49	78404.0	.127E+09	11283.6	80020.0	1028.00	78/06/29	83/12/01
00041	WEATHER	WMO CODE	4501		20	11.4000	574.989	23.9789	74.0000	.000000	73/10/03	77/11/17
00049	SURFACE	AREA	SQ. MI.		44	3410.00	-.297E+02	.000000	3410.00	3410.00	51/10/03	75/09/16
00060	STREAM	FLOW	CFS		678	1746.88	5908568	2430.75	12650.0	35.5000	50/12/10	74/09/24
00061	STREAM	FLOW,	INST-CFS		192	1682.20	7497508	2738.16	13600.0	31.8000	47/06/22	83/12/01
				J	2	205.000	1250.06	35.3562	230.000	180.000	78/10/23	78/11/28
				TOT	194	1666.97	7442201	2728.04	13600.0	31.8000	47/06/22	83/12/01
00065	STREAM	STAGE	FEET		2	3.79000	.273788	.523248	4.16000	3.42000	83/03/16	83/07/20
00070	TURB	JKSN	JTU		38	30.9737	3338.19	57.7770	250.000	2.00000	74/06/26	78/05/12
00076	TURB	TRBIDMTR	HACH FTU		46	35.8804	3091.12	55.5979	190.000	.800001	78/06/29	83/12/01
00080	COLOR	PT-CO	UNITS		5	29.0000	405.000	20.1246	60.0000	5.00000	61/12/14	62/08/01
00095	CNDUCTVY	AT 25C	MICROMHO		770	422.411	31746.4	178.175	1100.00	100.000	47/06/22	83/12/01
00300	DO		MG/L		126	9.63879	2.33284	1.52736	13.8000	6.80000	70/08/24	83/12/01
00400	PH		SU		764	7.69198	.149528	.386688	8.90000	6.60000	50/12/10	83/12/01
00403	LAB	PH	SU		21	8.32142	.052649	.229454	8.60000	7.80000	80/10/09	83/12/01
00405	CO2		MG/L		681	6.06156	19.5280	4.41905	40.0000	.400000	50/12/10	78/05/12
00410	T ALK	CACO3	MG/L		709	123.026	1824.05	42.7089	232.000	28.0000	47/06/22	80/08/27
00440	HCO3 ION	HCO3	MG/L		684	150.102	2655.40	51.5305	283.000	40.0000	47/06/22	78/05/12
00445	CO3 ION	CO3	MG/L		352	.443182	6.73750	2.59567	36.0000	.000000	59/10/25	78/05/12
00515	RESIDUE	DISS-105	C MG/L		1	69.0000			69.0000	69.0000	76/06/09	76/06/09
00530	RESIDUE	TOT NFLT	MG/L		1	80.0000			80.0000	80.0000	76/06/09	76/06/09
00572	BIOMASS	PERPHYTN	G/SQ M		8	6.27537	184.777	13.5933	39.0000	.000000	75/10/04	80/10/09
00573	BIOMASS	PERPHYTN	DW G/M2		8	10.6686	608.557	24.6690	71.0000	.308000	75/10/04	80/10/09
00600	TOTAL N	N	MG/L		73	1.07013	1.76438	1.32830	8.80000	.140000	74/06/26	81/08/18
00602	DISS.	NITROGEN	MG/L N		22	.746363	.094330	.307132	1.60000	.370000	79/09/25	81/09/10
00605	ORG N	N	MG/L		42	.880471	1.67475	1.29412	8.80000	.110000	78/01/25	81/09/10
00607	ORG N	DISS-N	MG/L		21	.586190	.059995	.244939	1.40000	.290000	79/10/11	81/09/10
00608	NH3+NH4-	N DISS	MG/L		29	.062414	.004169	.064568	.260000	.000000	79/10/11	83/12/01
				K	2	.060000	.372E-08	.000061	.060000	.060000	82/07/19	82/12/03
				TOT	31	.062258	.003891	.062381	.260000	.000000	79/10/11	83/12/01
00610	NH3+NH4-	N TOTAL	MG/L		38	.068947	.005912	.076892	.350000	.000000	77/11/17	81/09/10
				K	6	.010000	-.931E-10	.000000	.010000	.010000	78/06/29	79/09/25
				TOT	44	.060909	.005506	.074203	.350000	.000000	77/11/17	81/09/10
00618	NO3-N	DISS	MG/L		410	.294239	.065764	.256445	2.70000	.000000	47/06/22	70/08/24
00623	KJELDL N	DISS	MG/L		45	.497109	.069087	.262843	1.40000	.070000	75/08/26	81/09/10
00624	KJELDL N	SUSP	MG/L		43	.427440	1.73585	1.31752	8.70000	.000000	75/08/26	81/09/10
00625	TOT KJEL	N	MG/L		85	.818701	.911089	.954510	8.80000	.130000	74/06/26	83/12/01

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RETRIEVAL FOR DAVE RUITER

09251000
40 30 10.0 108 01 45.0 2
YAMPA RIVER NEAR MAYBELL, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050002000
0000 CLASS 00 CSN-RSP 0016319-0269675

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 077.20

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00630 NO2&NO3	N-TOTAL	MG/L			74	.276486	.657951	.811142	6.80000	.000000	74/06/26	81/08/18
				K	5	.098000	.000020	.004473	.100000	.090000	76/09/02	81/09/10
				TOT	79	.265189	.617689	.785932	6.80000	.000000	74/06/26	81/09/10
00631 NO2&NO3	N-DISS	MG/L			69	.244782	.099458	.315369	1.40000	.000000	70/09/22	83/12/01
				K	8	.100000	.851E-08	.000092	.100000	.100000	73/07/11	83/07/20
				TOT	77	.229740	.090966	.301605	1.40000	.000000	70/09/22	83/12/01
00650 T PO4	PO4	MG/L			10	.247000	.195779	.442469	1.20000	.000000	66/05/10	79/06/19
00660 ORTHOPO4	PO4	MG/L			105	.063739	.010268	.101329	.740001	.000000	67/10/24	83/03/16
00665 PHOS-TOT		MG/L P			87	.118505	.041734	.204288	1.60000	.010000	74/06/26	83/12/01
				K	3	.010000	.000000	.000000	.010000	.010000	74/09/24	77/04/21
				TOT	90	.114889	.040710	.201768	1.60000	.010000	74/06/26	83/12/01
00666 PHOS-DIS		MG/L P			50	.032200	.000495	.022250	.100000	.010000	77/11/17	83/12/01
				K	5	.010000	-.582E-10	.000000	.010000	.010000	75/08/26	82/07/19
				TOT	55	.030182	.000491	.022152	.100000	.010000	75/08/26	83/12/01
00671 PHOS-DIS	ORTHO	MG/L P			43	.032093	.001922	.043837	.240000	.000000	70/10/20	83/12/01
				K	8	.010000	-.665E-10	.000000	.010000	.010000	72/11/09	83/07/20
				TOT	51	.028627	.001680	.040989	.240000	.000000	70/10/20	83/12/01
00680 T ORG C	C	MG/L			38	7.03157	16.2099	4.02615	21.0000	2.70000	74/09/24	81/09/10
00681 D ORG C	C	MG/L			13	9.28461	49.2064	7.01473	31.0000	3.90000	75/08/26	81/08/18
00689 S ORG C	C	MG/L			13	1.17692	4.37026	2.09052	8.00000	.200000	75/08/26	81/08/18
00720 CYANIDE	CN-TOT	MG/L		K	2	.010000	.000000	.000000	.010000	.010000	82/05/11	82/09/14
				L	1	.010000			.010000	.010000	81/11/19	81/11/19
				TOT	3	.010000	.000000	.000000	.010000	.010000	81/11/19	82/09/14
00900 TOT HARD	CACO3	MG/L			727	147.003	2995.40	54.7303	380.000	29.0000	47/06/22	83/03/16
00902 NC HARD	CACO3	MG/L			712	23.4730	424.363	20.6001	200.000	.000000	47/06/22	81/02/23
00915 CALCIUM	CA,DISS	MG/L			562	35.6240	124.915	11.1766	104.000	6.00000	47/06/22	83/12/01
00925 MGNSIUM	MG,DISS	MG/L			562	14.9398	45.0575	6.71249	42.0000	.400000	47/06/22	83/12/01
00930 SODIUM	NA,DISS	MG/L			565	33.9282	381.572	19.5339	160.000	3.90000	50/12/10	83/12/01
00931 SODIUM	ADSBTION	RATIO			724	1.14717	.335569	.579284	4.60000	.200000	50/12/10	83/03/16
00932 PERCENT	SODIUM	%			607	30.2684	62.8220	7.92603	60.0000	9.00000	47/06/22	83/03/16
00933 NA+K		MG/L			174	33.0342	574.525	23.9692	100.0000	3.00000	47/06/22	80/02/12
00935 PTSSIUM	K,DISS	MG/L			523	2.57238	.917299	.957757	7.80000	.400000	50/12/10	83/12/01
00940 CHLORIDE	TOTAL	MG/L			730	17.4385	178.100	13.3454	130.000	1.00000	47/06/22	83/12/01
00945 SULFATE	SO4-TOT	MG/L			729	71.3717	1860.07	43.1286	310.000	8.10000	47/06/22	83/12/01
00950 FLUORIDE	F,DISS	MG/L			270	.317031	.017478	.132205	1.00000	.000000	50/12/10	83/12/01
				K	2	.100000	-.372E-08	.000000	.100000	.100000	73/06/13	75/03/17
				TOT	272	.315435	.017694	.133019	1.00000	.000000	50/12/10	83/12/01
00955 SILICA	DISOLVED	MG/L			563	9.35315	13.6838	3.69917	19.0000	.800000	50/12/10	83/12/01
01000 ARSENIC	AS,DISS	UG/L			23	1.26087	.201585	.448982	2.00000	.999999	74/09/24	83/03/16
				K	12	1.00000	.000000	.000000	1.00000	1.00000	74/12/09	83/12/01
				TOT	35	1.17143	.146220	.382388	2.00000	.999999	74/09/24	83/12/01

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112WRD 14050002000
0000 CLASS 00 CSN-RSP 0016319-0269675

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 077.20

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01001 ARSENIC	AS,SUSP	UG/L		15	1.60000	5.11429	2.26148	9.00000	.000000	74/12/09	82/05/11
			K	6	1.00000	.000000	.000000	1.00000	1.00000	74/09/24	77/12/15
			TOT	21	1.42857	3.65715	1.91237	9.00000	.000000	74/09/24	82/05/11
01002 ARSENIC	AS,TOT	UG/L		26	1.84615	3.01539	1.73649	9.00000	.000000	74/12/09	82/09/14
			K	4	1.00000	.000000	.000000	1.00000	1.00000	74/09/24	77/07/26
			TOT	30	1.73333	2.68506	1.63862	9.00000	.000000	74/09/24	82/09/14
01005 BARIUM	BA,DISS	UG/L		18	64.0000	444.588	21.0853	110.000	30.0000	78/11/28	83/12/01
			K	4	100.000	.000000	.000000	100.000	100.000	77/12/15	79/06/19
			TOT	22	70.5454	561.884	23.7041	110.000	30.0000	77/12/15	83/12/01
01006 BARIUM	BA,SUSP	UG/L		17	32.3529	1506.62	38.8152	100.000	.000000	77/12/15	82/05/11
01007 BARIUM	BA,TOT	UG/L		10	80.0000	4000.00	63.2456	200.000	.000000	79/10/11	82/05/11
			K	8	100.000	.000000	.000000	100.000	100.000	77/12/15	82/09/14
			TOT	18	88.8889	2222.22	47.1405	200.000	.000000	77/12/15	82/09/14
01010 BERYLIUM	BE,DISS	UG/L	K	4	.500000	.000000	.000000	.500000	.500000	82/12/03	83/12/01
01012 BERYLIUM	BE,TOT	UG/L		1	10.0000			10.0000	10.0000	82/05/11	82/05/11
			K	1	10.0000			10.0000	10.0000	82/09/14	82/09/14
			TOT	2	10.0000	.000000	.000000	10.0000	10.0000	82/05/11	82/09/14
01020 BORON	B,DISS	UG/L		238	67.0580	1761.28	41.9676	430.000	.000000	51/10/20	71/07/27
01025 CADMIUM	CD,DISS	UG/L		4	2.25000	.250000	.500000	3.00000	2.00000	75/02/11	78/09/26
			K	26	1.50000	.340000	.583095	3.00000	1.00000	74/09/24	83/12/01
			U	6	.000000	.000000	.000000	.000000	.000000	74/12/09	77/12/15
			TOT	36	1.33333	.685717	.828080	3.00000	.000000	74/09/24	83/12/01
01026 CADMIUM	CD,SUSP	UG/L		11	2.63636	15.2546	3.90571	9.00000	.000000	75/02/11	79/10/11
			K	8	9.37500	.553571	.744024	10.0000	8.00000	74/09/24	77/07/26
			TOT	19	5.47368	20.3743	4.51379	10.0000	.000000	74/09/24	79/10/11
01027 CADMIUM	CD,TOT	UG/L		10	.600000	.933333	.966092	2.00000	.000000	78/03/21	81/08/18
			K	17	14.4706	78.0147	8.83259	20.0000	1.00000	74/09/24	82/09/14
			U	3	.000000	.000000	.000000	.000000	.000000	78/11/28	79/08/29
			TOT	30	8.40000	93.2138	9.65473	20.0000	.000000	74/09/24	82/09/14
01030 CHROMIUM	CR,DISS	UG/L		7	8.57143	47.6191	6.90066	20.0000	.000000	79/10/11	81/08/18
			K	15	12.2667	67.6381	8.22424	20.0000	1.00000	74/12/09	83/12/01
			U	13	.000000	.000000	.000000	.000000	.000000	74/09/24	79/08/29
			TOT	35	6.97143	67.7345	8.23009	20.0000	.000000	74/09/24	83/12/01
01031 CHROMIUM	CR,SUSP	UG/L		23	3.47826	41.8972	6.47281	20.0000	.000000	74/09/24	81/08/18
01034 CHROMIUM	CR,TOT	UG/L		11	10.9091	49.0909	7.00649	20.0000	.000000	76/03/02	82/05/11
			K	8	17.5000	21.4286	4.62910	20.0000	10.0000	74/12/09	82/09/14
			U	10	.000000	.000000	.000000	.000000	.000000	74/09/24	79/06/19
			TOT	29	8.96552	73.8917	8.59603	20.0000	.000000	74/09/24	82/09/14
01035 COBALT	CO,DISS	UG/L		2	10.5000	180.500	13.4350	20.0000	1.00000	75/06/10	82/09/14
			K	20	2.65000	.450003	.670823	3.00000	1.00000	76/09/02	83/12/01
			U	14	.000000	.000000	.000000	.000000	.000000	74/09/24	79/06/19

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01035	COBALT	CO,DISS	UG/L	TOT	36	2.05556	11.3683	3.37168	20.0000	.000000	74/09/24	83/12/01
01036	COBALT	CO,SUSP	UG/L		9	6.66667	266.750	16.3325	50.0000	.000000	75/12/05	79/10/11
				K	10	49.8000	.180121	.424407	50.0000	49.0000	74/09/24	77/07/26
				TOT	19	29.3684	608.246	24.6626	50.0000	.000000	74/09/24	79/10/11
01037	COBALT	CO,TOTAL	UG/L		12	3.00000	14.9091	3.86123	14.0000	.000000	78/03/21	82/05/11
				K	14	85.8571	1292.44	35.9505	100.000	1.00000	74/09/24	82/09/14
				U	4	.000000	.000000	.000000	.000000	.000000	77/12/15	79/08/29
				TOT	30	41.2667	2385.72	48.8438	100.000	.000000	74/09/24	82/09/14
01040	COPPER	CU,DISS	UG/L		32	6.15625	98.3940	9.91938	58.0000	2.00000	74/09/24	83/12/01
				K	3	2.00000	.000000	.000000	2.00000	2.00000	76/09/02	79/08/29
				U	1	.000000			.000000	.000000	78/11/28	78/11/28
				TOT	36	5.63889	89.4372	9.45712	58.0000	.000000	74/09/24	83/12/01
01041	COPPER	CU,SUSP	UG/L		26	19.3461	4637.99	68.1028	350.000	.000000	74/12/09	82/09/14
				K	3	6.00000	4.00000	2.00000	8.00000	4.00000	74/09/24	77/03/28
				TOT	29	17.9655	4158.46	64.4861	350.000	.000000	74/09/24	82/09/14
01042	COPPER	CU,TOT	UG/L		19	31.1053	6617.43	81.3476	360.000	2.00000	75/02/11	82/09/14
				K	11	18.3636	29.4547	5.42722	20.0000	2.00000	74/09/24	79/06/19
				TOT	30	26.4333	4156.53	64.4711	360.000	2.00000	74/09/24	82/09/14
01044	IRON	FE,SUSP	UG/L		16	1298.75	3793171	1947.61	6200.00	10.0000	75/08/26	82/09/14
01045	IRON	FE,TOT	UG/L		68	763.235	3671873	1916.21	13000.0	20.0000	51/10/10	82/09/14
01046	IRON	FE,DISS	UG/L		168	76.2072	3841.42	61.9792	370.000	9.00000	50/12/10	83/12/01
				K	6	8.83333	8.16670	2.85774	10.0000	3.00000	75/08/26	82/03/18
				TOT	174	73.8839	3860.43	62.1324	370.000	3.00000	50/12/10	83/12/01
01049	LEAD	PB,DISS	UG/L		22	3.54545	21.3074	4.61599	23.0000	.000000	74/09/24	83/12/01
				K	7	1.42857	.285717	.534525	2.00000	1.00000	74/12/09	83/03/16
				U	7	.000000	.000000	.000000	.000000	.000000	75/08/26	79/08/29
				TOT	36	2.44444	14.9968	3.87257	23.0000	.000000	74/09/24	83/12/01
01050	LEAD	PB,SUSP	UG/L		18	14.6667	938.824	30.6402	98.0000	.000000	75/12/05	82/09/14
				K	9	98.2222	2.45312	1.56624	100.000	96.0000	74/09/24	77/07/26
				TOT	27	42.5185	2225.72	47.1775	100.000	.000000	74/09/24	82/09/14
01051	LEAD	PB,TOT	UG/L		18	6.11111	30.8105	5.55072	24.0000	.000000	77/12/15	82/09/14
				K	12	200.000	.000000	.000000	200.000	200.000	74/09/24	77/09/07
				TOT	30	83.6667	9351.47	96.7030	200.000	.000000	74/09/24	82/09/14
01054	MANGNESE	MN,SUSP	UG/L		29	51.3793	4019.46	63.3992	300.000	.000000	74/09/24	82/09/14
01055	MANGNESE	MN	UG/L		30	64.6667	4963.67	70.4533	350.000	20.0000	74/09/24	82/09/14
01056	MANGNESE	MN,DISS	UG/L		44	16.7727	163.436	12.7842	50.0000	.000000	71/08/24	83/12/01
				K	24	10.0000	.000000	.000000	10.0000	10.0000	72/10/04	79/06/19
				TOT	68	14.3823	115.523	10.7482	50.0000	.000000	71/08/24	83/12/01
01060	MOLY	MO,DISS	UG/L	K	4	10.0000	.000000	.000000	10.0000	10.0000	82/12/03	83/12/01
01062	MOLY	MO,TOT	UG/L		2	2.00000	2.00000	1.41421	3.00000	1.00000	82/05/11	82/09/14
01065	NICKEL	NI,DISS	UG/L		14	5.07143	78.8407	8.87923	35.0000	.000000	79/10/11	83/12/01

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01065	NICKEL	NI,DISS	UG/L	K	1	1.00000			1.00000	1.00000	82/05/11	82/05/11
				U	1	.000000			.000000	.000000	75/08/26	75/08/26
01066	NICKEL	NI,SUSP	UG/L	TOT	16	4.50000	70.8000	8.41427	35.0000	.000000	75/08/26	83/12/01
					9	3.33333	26.0000	5.09902	16.0000	.000000	79/10/11	82/09/14
01067	NICKEL	NI,TOTAL	UG/L	K	1	50.0000			50.0000	50.0000	75/08/26	75/08/26
				TOT	10	8.00000	240.889	15.5206	50.0000	.000000	75/08/26	82/09/14
01075	SILVER	AG,DISS	UG/L		10	8.80000	74.8445	8.65127	30.0000	3.00000	79/10/11	82/09/14
				K	2	25.5000	1200.50	34.6482	50.0000	1.00000	75/08/26	81/11/19
01076	SILVER	AG,SUSP	UG/L	TOT	12	11.5833	212.629	14.5818	50.0000	1.00000	75/08/26	82/09/14
01077	SILVER	AG,TOT	UG/L		10	.300000	.233333	.483046	1.00000	.000000	79/10/11	83/03/16
				K	5	1.00000	.000000	.000000	1.00000	1.00000	82/03/18	83/12/01
01080	STRONTUM	SR,DISS	UG/L	U	7	.000000	.000000	.000000	.000000	.000000	77/12/15	79/08/29
01085	VANADIUM	V,DISS	UG/L	TOT	22	.363636	.242424	.492366	1.00000	.000000	77/12/15	83/12/01
					14	.071429	.071429	.267261	1.00000	.000000	77/12/15	81/08/18
01090	ZINC	ZN,DISS	UG/L		13	.846154	7.64103	2.76424	10.0000	.000000	79/10/11	82/05/11
				K	3	1.33333	.333335	.577352	2.00000	1.00000	78/03/21	82/09/14
01091	ZINC	ZN,SUSP	UG/L	U	6	.000000	.000000	.000000	.000000	.000000	77/12/15	79/08/29
01092	ZINC	ZN,TOT	UG/L	TOT	22	.681818	4.60822	2.14668	10.0000	.000000	77/12/15	82/09/14
					4	335.000	20700.0	143.875	460.000	130.000	82/12/03	83/12/01
01105	ALUMINUM	AL,TOT	UG/L	K	1	1.20000			1.20000	1.20000	75/08/26	75/08/26
01106	ALUMINUM	AL,DISS	UG/L	TOT	4	6.00000	.000000	.000000	6.00000	6.00000	82/12/03	83/12/01
01130	LITHIUM	LI,DISS	UG/L		5	5.04000	4.60803	2.14663	6.00000	1.20000	75/08/26	83/12/01
					18	19.2222	366.418	19.1421	70.0000	3.00000	74/09/24	83/12/01
01132	LITHIUM	LI,TOT	UG/L	K	12	10.9167	70.4470	8.39327	20.0000	3.00000	75/06/10	82/05/11
01145	SELENIUM	SE,DISS	UG/L	U	6	.000000	.000000	.000000	.000000	.000000	75/08/26	78/09/26
01146	SELENIUM	SE,SUSP	UG/L	TOT	36	13.2500	250.421	15.8247	70.0000	.000000	74/09/24	83/12/01
					24	26.2083	876.520	29.6061	130.000	.000000	74/09/24	82/09/14
					24	41.6667	1310.15	36.1959	150.000	.000000	74/09/24	82/09/14
				K	4	20.0000	.000000	.000000	20.0000	20.0000	76/09/02	79/06/19
				U	1	.000000			.000000	.000000	79/08/29	79/08/29
				TOT	29	37.2414	1184.98	34.4235	150.000	.000000	74/09/24	82/09/14
					2	2600.00	2420000	1555.63	3700.00	1500.00	82/05/11	82/09/14
					4	27.5000	25.0000	5.00000	30.0000	20.0000	82/12/03	83/12/01
					4	27.5000	76.3333	8.73689	34.0000	15.0000	82/12/03	83/12/01
				K	1	3.00000			3.00000	3.00000	81/08/18	81/08/18
				TOT	5	22.6000	177.301	13.3154	34.0000	3.00000	81/08/18	83/12/01
					2	20.0000	200.000	14.1421	30.0000	10.0000	82/05/11	82/09/14
					20	1.55000	2.47105	1.57196	7.00000	.000000	74/12/09	83/12/01
				K	16	1.00000	.000000	.000000	1.00000	1.00000	74/09/24	83/02/10
				TOT	36	1.30555	1.41826	1.19091	7.00000	.000000	74/09/24	83/12/01
					25	.200000	.166667	.408248	1.00000	.000000	74/09/24	82/03/18

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01147	SELENIUM	SE,TOT	UG/L		19	1.31579	2.33918	1.52944	7.00000	.000000	74/12/09	82/09/14
				K	12	1.00000	.000000	.000000	1.00000	1.00000	74/09/24	81/11/19
				TOT	31	1.19355	1.42796	1.19497	7.00000	.000000	74/09/24	82/09/14
01330	ODOR	ATMOSPH	SEVERITY		28	.571429	.476190	.690066	2.00000	.000000	75/05/13	78/01/25
01345	FLOATING	DEBRIS	SEVERITY		12	1.08333	.083334	.288676	2.00000	1.00000	76/08/10	77/12/15
01350	TURBID		SEVERITY		1	.000000			.000000	.000000	77/07/26	77/07/26
03515	BETA-D	AS CS137	PC/L		1	2.20000			2.20000	2.20000	76/06/09	76/06/09
03516	BETA-S	AS CS137	PC/L		1	3.40000			3.40000	3.40000	76/06/09	76/06/09
31501	TOT COLI	MFIMENDO	/100ML		13	58.7690	651.203	25.5187	110.000	20.0000	74/04/03	77/12/15
				B	12	179.000	110480	332.386	1200.00	11.0000	74/04/24	76/10/22
				L	2	1200.00	319999	565.685	1600.00	799.999	77/05/27	77/09/07
				TOT	27	196.740	146438	382.673	1600.00	11.0000	74/04/03	77/12/15
31616	FEC COLI	MFM-FCBR	/100ML		10	94.4997	10460.9	102.279	360.000	25.0000	74/02/13	76/07/19
				B	12	18.5000	541.727	23.2750	74.9999	.999999	74/04/03	76/09/02
				K	1	.999999			.999999	.999999	75/02/11	75/02/11
				TOT	23	50.7824	6100.14	78.1034	360.000	.999999	74/02/13	76/09/02
31625	FEC COLI	M-FCAGAD	/100 ML		14	202.428	96242.3	310.229	1100.00	44.0000	76/12/07	83/07/20
				B	22	45.1817	5462.12	73.9062	350.000	3.00000	76/11/16	84/02/28
				K	11	3.36363	6.65457	2.57964	10.00000	.999999	76/10/22	82/12/03
				TOT	47	82.2339	36234.9	190.355	1100.00	.999999	76/10/22	84/02/28
31673	FECSTREP	MFKFAGAR	/100ML		24	479.541	727948	853.199	3700.00	20.0000	77/02/25	83/07/20
				B	16	87.2498	59835.9	244.614	1000.00	4.00000	77/09/07	84/02/28
				K	1	4.00000			4.00000	4.00000	80/12/17	80/12/17
				TOT	41	314.853	480419	693.123	3700.00	4.00000	77/02/25	84/02/28
31679	FECSTREP	MF M-ENT	/100ML		12	217.833	221859	471.019	1700.00	3.00000	74/04/03	76/12/07
				B	15	21.3999	522.258	22.8530	69.9999	3.00000	74/02/13	76/12/07
				K	3	.999998	.000001	.001196	.999999	.999999	75/01/22	76/11/16
				TOT	30	97.9331	94355.6	307.174	1700.00	.999999	74/02/13	76/12/07
32226	CHL B	PERIPHTN	MG/M2		1	.000000			.000000	.000000	76/05/12	76/05/12
32228	CHL A	PERIPHTN	MG/M2		1	.000000			.000000	.000000	76/05/12	76/05/12
39250	NAPTHAL	ENES, PC	. UG/L		1	.000000			.000000	.000000	76/06/09	76/06/09
39330	ALDRIN		TOT UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39340	GAMMABHC	LINDANE	TOT.UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39350	CHLRDANE	TECH&MET	TOT UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39360	DDD	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39365	DDE	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39370	DDT	WHL SMPL	UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39380	DIELDRIN		TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39390	ENDRIN		TOT UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39398	ETHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/09	76/06/09
39400	TOXAPHEN		TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09251000
40 30 10.0 108 01 45.0 2
YAMPA RIVER NEAR MAYBELL, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050002000
0000 CLASS 00 CSN-RSP 0016319-0269675

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 077.20

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39410 HEPTCHLR			TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39420 HPCHLREP			TOTUG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39516 PCBS	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39530 MALATHN	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39540 PARATHN	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39570 DIAZINON	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39600 MPARATHN	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39730 2,4-D	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39740 2,4,5-T	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39760 SILVEX	WHL SMPL		UG/L		2	.000000	.000000	.000000	.000000	.000000	75/09/16	76/06/09
39786 TRITHION	WHL SMPL		UG/L		1	.000000			.000000	.000000	75/09/16	76/06/09
39790 MTRTHION	WHL SMPL		UG/L		1	.000000			.000000	.000000	76/06/09	76/06/09
60050 ALGAE	TOTAL		/ML		50	2955.24	.272E+08	5215.93	33999.9	36.0000	74/07/30	81/09/10
70300 RESIDUE	DISS-180	C	MG/L		686	261.815	12128.6	110.130	677.000	64.0000	47/06/22	83/12/01
70301 DISS SOL	SUM		MG/L		557	263.917	11673.9	108.046	697.000	51.0000	50/12/10	83/03/16
70302 DISS SOL	TONS/DAY				725	753.964	896384	946.776	8440.00	41.2000	47/06/22	83/03/16
70303 DISS SOL	TONS PER		ACRE-FT		725	.357703	.022359	.149529	.920001	.090000	47/06/22	83/03/16
70331 SUSP SED	PARTSIZE		%<.062MM		30	75.9232	342.782	18.5144	98.0000	17.0000	51/10/03	83/07/20
70332 SUSP SED	PARTSIZE		%<.125MM		6	91.3333	71.8805	8.47823	99.0000	78.0000	51/10/03	79/04/25
70333 SUSP SED	PARTSIZE		%<.250MM		6	96.5000	9.51406	3.08449	100.000	92.0000	51/10/03	79/04/25
70334 SUSP SED	PARTSIZE		%<.500MM		5	98.1999	3.71191	1.92663	100.0000	95.0000	51/11/04	79/04/25
70337 SUSP SED	PARTSIZE		%<.002MM		6	51.8332	728.171	26.9846	86.9999	15.0000	51/10/03	82/05/11
70338 SUSP SED	PARTSIZE		%<.004MM		6	58.8332	687.381	26.2180	89.9999	20.0000	51/10/03	82/05/11
70339 SUSP SED	PARTSIZE		%<.008MM		2	76.5000	684.500	26.1629	95.0000	58.0000	51/10/03	52/06/06
70340 SUSP SED	PARTSIZE		%<.016MM		6	72.4998	619.526	24.8903	97.0000	30.0000	51/10/03	82/05/11
70341 SUSP SED	PARTSIZE		%<.031MM		2	90.5000	84.5000	9.19239	97.0000	84.0000	51/10/03	52/06/06
70342 SUSP SED	PARTSIZE		%<.062MM		4	78.2499	594.927	24.3911	99.9998	44.0000	76/02/18	82/05/11
70343 SUSP SED	PARTSIZE		%<.125MM		3	78.6666	549.334	23.4379	96.0000	52.0000	79/03/29	82/05/11
70344 SUSP SED	PARTSIZE		%<.250MM		3	88.9999	363.029	19.0533	100.0000	67.0000	79/03/29	82/05/11
70345 SUSP SED	PARTSIZE		%<.500MM		1	99.0000			99.0000	99.0000	82/05/11	82/05/11
70346 SUSP SED	PARTSIZE		%<1.00MM		1	100.0000			100.0000	100.0000	82/05/11	82/05/11
70507 PHOS-T	ORTHO		MG/L P		2	.015000	.000050	.007071	.020000	.010000	70/11/23	72/03/21
70950 BIOMASS-	CHLRATIO		PERIUNIT		4	.200E+09	.159E+18	.399E+09	.800E+09	604.000	76/10/14	80/10/09
70955 CHLRPHYL	A-PERIPH		CHSPUG/L		1	.348000			.348000	.348000	76/10/14	76/10/14
70956 CHLRPHYL	B-PERIPH		CHSPUG/L		1	.185000			.185000	.185000	76/10/14	76/10/14
70957 CHLRPHYL	A-PERIPH		CHFLUG/L		6	.329000	.346246	.588427	1.51000	.000000	78/05/12	80/10/09
70958 CHLRPHYL	B-PERIPH		CHFLUG/L		6	.025500	.001497	.038687	.090000	.000000	78/05/12	80/10/09
71845 AMMONIA	TOT-NH4		MG/L		19	.045263	.004893	.069950	.280000	.000000	79/04/25	81/01/19
71846 AMMONIA	DISS-NH4		MG/L		29	.081379	.006648	.081536	.330000	.000000	79/10/11	83/03/16
71850 NITRATE	TOT-NO3		MG/L		58	.812064	.428100	.654294	3.30000	.000000	51/10/10	68/09/30
71851 NITRATE	DISS-NO3		MG/L		410	1.30239	1.30325	1.14160	12.0000	.000000	47/06/22	70/08/24

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09251000
40 30 10.0 108 01 45.0 2
YAMPA RIVER NEAR MAYBELL, CO.
08081 COLORADO MOFFAT
110691

/TYPA/AMBNT/STREAM

112WRD 14050002000
0000 CLASS 00 CSN-RSP 0016319-0269675

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 077.20

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71885	IRON	FE	UG/L		24	111.250	26420.1	162.543	790.000	.000000	59/10/31	65/09/07
71886	TOTAL P	AS PO4	MG/L		37	.312702	.121120	.348023	1.30000	.030000	79/04/25	83/12/01
71887	TOTAL N	AS NO3	MG/L		73	4.72285	34.3924	5.86450	39.0000	.620001	74/06/26	81/08/18
71890	MERCURY	HG,DISS	UG/L		9	.500000	1.73250	1.31624	4.00000	.000000	79/06/19	82/12/03
				K	27	.292592	.041481	.203670	.500000	.100000	74/09/24	83/12/01
				TOT	36	.344444	.435111	.659629	4.00000	.000000	74/09/24	83/12/01
71895	MERCURY	HG,SUSP	UG/L		23	.134783	.183281	.428113	1.90000	.000000	74/09/24	81/08/18
71900	MERCURY	HG,TOTAL	UG/L		11	.700000	2.35200	1.53362	4.90000	.000000	79/06/19	82/09/14
				K	18	.366666	.037647	.194028	.500000	.100000	74/09/24	79/08/29
				TOT	29	.493103	.889949	.943371	4.90000	.000000	74/09/24	82/09/14
72000	LND SURF	DATUM	FT		44	5900.19	381.023	19.5198	5900.23	5900.23	51/10/03	75/09/16
80030	ALPHA-D	AS U-NAT	UG/L		1	1.70000			1.70000	1.70000	76/06/09	76/06/09
80040	ALPHA-S	AS U-NAT	UG/L		1	7.90000			7.90000	7.90000	76/06/09	76/06/09
80050	BETA-D	AS SR-Y-	90, PC/L		1	1.70000			1.70000	1.70000	76/06/09	76/06/09
80060	BETA-S	AS SR-Y-	90, PC/L		1	2.70000			2.70000	2.70000	76/06/09	76/06/09
80154	SUSP SED	CONC	MG/L		142	167.688	100596	317.169	2080.00	2.00000	51/10/03	83/09/20
80155	SUSP SED	DISCHARG	TONS/DAY		104	2959.62	.556E+08	7460.96	47200.0	1.20000	51/10/03	82/09/18
80164	BED MATL	PARTSIZE	%<.062MM		1	68.0000			68.0000	68.0000	83/09/06	83/09/06
82068	POTAS-40	K-40,DIS	PC/LITER		7	1.57143	.195714	.442396	2.10000	1.00000	81/01/19	81/07/27

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

09251000
40 30 10.0 108 01 45.0 2
YAMPA RIVER NEAR MAYBELL
08081 COLORADO
COLORADO RIVER BASIN 110691
UPPER COLORADO RIVER SUB BASIN
1110NET
0000 CLASS 00 CSN-RSP 0112643-0092835

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00665	PHOS-TOT		MG/L P		1	.330000			.330000	.330000	72/02/23	72/02/23
09503	RA-226	DISOLVED	PC/L	K	4	.100000	-.248E-08	.000000	.100000	.100000	71/08/24	72/05/16
09505	RA-226	SUSP	PC/L		3	.083667	.006350	.079689	.160000	.001000	71/08/24	72/05/16
22703	U-NAT	DISOLVED	UG/L		4	1.50000	1.22000	1.10454	3.10000	.600000	71/08/24	72/05/16

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250610
40 18 45.0 107 49 18.0 2
JUBB CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276131-0269664

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		64	10.4999	65.6827	8.10449	28.0000	.000000	75/07/30	81/09/17
00028	ANALYZE	AGENCY	CODE		32	77520.2	.199E+09	14140.5	80020.0	28.0000	79/05/09	81/09/17
00041	WEATHER	WMO CODE	4501		10	8.60000	647.377	25.4436	81.0000	.000000	75/07/30	76/07/06
00060	STREAM	FLOW	CFS		1	.050000			.050000	.050000	75/11/12	75/11/12
00061	STREAM	FLOW,	INST-CFS		74	.328822	.846778	.920205	5.55000	.010000	75/07/30	81/09/17
				K	2	.010000	-.145E-10	.000000	.010000	.010000	77/11/28	78/05/15
				TOT	76	.320432	.826836	.909305	5.55000	.010000	75/07/30	81/09/17
00095	CNDUCTVY	AT 25C	MICROMHO		46	1567.17	104593	323.408	2200.00	420.000	75/07/30	81/09/17
00300	DO		MG/L		38	9.42103	2.60165	1.61296	12.4000	6.00000	75/08/31	81/09/17
00400	PH		SU		44	8.18859	.048698	.220675	8.60000	7.60000	75/07/30	81/09/17
00403	LAB	PH	SU		11	8.23636	.018555	.136216	8.50000	8.00000	80/10/29	81/09/17
00405	CO2		MG/L		22	6.28181	16.5806	4.07193	18.0000	1.80000	75/07/30	79/07/23
00410	T ALK	CACO3	MG/L		32	400.906	8084.19	89.9121	556.000	116.000	75/07/30	80/09/29
00440	HCO3 ION	HCO3	MG/L		22	502.318	10792.9	103.889	678.000	142.000	75/07/30	79/07/23
00445	CO3 ION	CO3	MG/L		22	1.13636	13.5519	3.68130	13.0000	.000000	75/07/30	79/09/06
00572	BIOMASS	PERPHYTN	G/SQ M		1	.200000			.200000	.200000	75/10/08	75/10/08
00573	BIOMASS	PERPHYTN	DW G/M2		1	7.90000			7.90000	7.90000	75/10/08	75/10/08
00600	TOTAL N	N	MG/L		1	.350000			.350000	.350000	75/08/31	75/08/31
00623	KJELDL N	DISS	MG/L		1	.210000			.210000	.210000	75/08/31	75/08/31
00624	KJELDL N	SUSP	MG/L		1	.130000			.130000	.130000	75/08/31	75/08/31
00625	TOT KJEL	N	MG/L		2	.460000	.028800	.169706	.580000	.340000	75/08/31	80/05/19
00630	NO2&NO3	N-TOTAL	MG/L		1	.010000			.010000	.010000	75/08/31	75/08/31
00631	NO2&NO3	N-DISS	MG/L		40	.105250	.059641	.244215	1.40000	.000000	75/07/30	81/09/17
				K	3	.100000	-.186E-08	.000000	.100000	.100000	75/10/09	79/06/25
				TOT	43	.104884	.055383	.235335	1.40000	.000000	75/07/30	81/09/17
00660	ORTHOPO4	PO4	MG/L		41	.448778	5.44042	2.33247	15.0000	.000000	75/07/30	81/09/17
00665	PHOS-TOT		MG/L P		3	.016667	.000033	.005774	.020000	.010000	75/08/31	80/05/19
00666	PHOS-DIS		MG/L P	K	1	.010000			.010000	.010000	75/08/31	75/08/31
00668	PHOS MUD	DRY WGT	MG/KG-P		7	670.000	9000.00	94.8683	840.000	570.000	79/08/02	80/06/24
00671	PHOS-DIS	ORTHO	MG/L P		36	.031389	.001664	.040789	.150000	.000000	75/07/30	81/09/17
				K	5	.010000	-.582E-10	.000000	.010000	.010000	75/09/17	79/05/09
				TOT	41	.028780	.001506	.038807	.150000	.000000	75/07/30	81/09/17
00680	T ORG C	C	MG/L		12	13.6833	51.5034	7.17658	27.0000	5.90000	75/10/09	81/07/15
00681	D ORG C	C	MG/L		15	9.21333	8.46559	2.90957	17.0000	4.60000	75/07/30	81/07/15
00686	BM INORG	CARBON	GM/KG-C		7	3.30000	9.40003	3.06595	6.30000	.000000	79/08/02	80/06/24
00687	BM ORG	CARBON	GM/KG-C		7	30.8143	331.575	18.2092	54.0000	9.70000	79/08/02	80/06/24
00689	S ORG C	C	MG/L		2	.100000	.020000	.141421	.200000	.000000	75/08/31	80/06/24
00693	CARBON,B	M-IN+ORG	. GM/KG		7	34.1286	309.282	17.5864	54.0000	9.90000	79/08/02	80/06/24
00720	CYANIDE	CN-TOT	MG/L		2	.005000	.000050	.007071	.010000	.000000	75/07/30	75/10/09
00900	TOT HARD	CACO3	MG/L		42	768.809	32844.5	181.230	1200.00	170.000	75/07/30	81/09/17
00902	NC HARD	CACO3	MG/L		35	351.514	13304.4	115.345	700.000	51.0000	75/07/30	81/02/24

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250610
40 18 45.0 107 49 18.0 2
JUBB CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276131-0269664

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00915 CALCIUM	CA,DISS	MG/L		43	89.5116	484.923	22.0210	150.000	26.0000	75/07/30	81/09/17
00925 MGNSIUM	MG,DISS	MG/L		42	132.476	1201.46	34.6621	190.000	25.0000	75/07/30	81/09/17
00930 SODIUM	NA,DISS	MG/L		43	82.4884	651.256	25.5197	120.000	18.0000	75/07/30	81/09/17
00931 SODIUM	ADSBTION	RATIO		42	1.30952	.131623	.362798	2.30000	.600000	75/07/30	81/09/17
00932 PERCENT	SODIUM	%		42	19.5000	29.9640	5.47394	47.0000	13.0000	75/07/30	81/09/17
00933 NA+K		MG/L		6	79.0000	965.600	31.0741	130.000	39.0000	79/05/09	80/02/19
00935 PTSSIUM	K,DISS	MG/L		43	7.14648	4.59003	2.14243	15.0000	4.60000	75/07/30	81/09/17
00940 CHLORIDE	TOTAL	MG/L		41	35.0341	208.219	14.4298	110.000	7.40000	75/07/30	81/09/17
00945 SULFATE	SO4-TOT	MG/L		42	468.905	17708.2	133.072	830.000	94.0000	75/07/30	81/09/17
00950 FLUORIDE	F,DISS	MG/L		43	.337209	.005725	.075666	.600000	.200000	75/07/30	81/09/17
00955 SILICA	DISOLVED	MG/L		43	11.9605	13.3427	3.65277	18.0000	1.70000	75/07/30	81/09/17
01000 ARSENIC	AS,DISS	UG/L		10	1.20000	.177778	.421638	2.00000	1.00000	75/07/30	81/09/17
			K	1	1.00000			1.00000	1.00000	75/07/30	81/04/28
01001 ARSENIC	AS,SUSP	UG/L	TOT	11	1.18182	.163637	.404520	2.00000	1.00000	76/09/01	76/09/01
			K	4	.500000	1.00000	1.00000	2.00000	.000000	75/07/30	81/04/28
			TOT	2	1.00000	.000000	.000000	1.00000	1.00000	80/02/19	81/04/28
01002 ARSENIC	AS,TOT	UG/L		6	.666667	.666667	.816497	2.00000	.000000	75/07/30	79/09/06
01003 ARSENIC	SEDMG/KG	DRY WGT		7	1.42857	.619050	.786797	3.00000	1.00000	75/07/30	81/04/28
01005 BARIUM	BA,DISS	UG/L		8	6.12500	2.98214	1.72689	10.0000	5.00000	75/07/30	81/04/28
01006 BARIUM	BA,SUSP	UG/L	K	1	100.000			100.000	100.000	75/08/31	80/06/24
01007 BARIUM	BA,TOT	UG/L		1	.000000			.000000	.000000	75/07/30	75/07/30
01010 BERYLIUM	BE,DISS	UG/L	K	1	100.000			100.000	100.000	75/07/30	75/07/30
01011 BERYLIUM	BE,SUSP	UG/L	K	1	10.0000			10.0000	10.0000	75/07/30	75/07/30
01012 BERYLIUM	BE,TOT	UG/L		1	.000000			.000000	.000000	75/07/30	75/07/30
01020 BORON	B,DISS	UG/L	K	1	10.0000			10.0000	10.0000	75/07/30	75/07/30
				41	146.341	1778.82	42.1761	310.000	70.0000	75/07/30	81/09/17
			K	1	20.0000			20.0000	20.0000	75/09/01	75/09/01
01025 CADMIUM	CD,DISS	UG/L	TOT	42	143.333	2115.48	45.9944	310.000	20.0000	75/07/30	81/09/17
			K	1	2.00000			2.00000	2.00000	76/09/01	76/09/01
			U	10	1.60000	.266669	.516400	2.00000	1.00000	75/07/30	81/04/28
			TOT	1	.000000			.000000	.000000	75/08/31	75/08/31
01026 CADMIUM	CD,SUSP	UG/L		12	1.50000	.454545	.674200	2.00000	.000000	75/07/30	81/04/28
			K	3	.333333	.333333	.577350	1.00000	.000000	79/05/09	80/02/19
			TOT	2	9.50000	.500000	.707107	10.0000	9.00000	75/07/30	75/08/31
01027 CADMIUM	CD,TOT	UG/L		5	4.00000	25.5000	5.04975	10.0000	.000000	75/07/30	80/02/19
				6	.500000	.700000	.836660	2.00000	.000000	79/05/09	81/04/28
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/07/30	75/08/31
			U	1	.000000			.000000	.000000	79/09/06	79/09/06
			TOT	9	4.77778	74.9444	8.65705	20.0000	.000000	75/07/30	81/04/28
01028 CD MUD	DRY WGT	MG/KG-CD		7	1.14286	.476192	.690067	2.00000	.000000	79/08/02	80/06/24
01029 CHROMIUM	SEDMG/KG	DRY WGT		8	5.25000	1.64286	1.28174	7.00000	3.00000	75/08/31	80/06/24

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250610
40 18 45.0 107 49 18.0 2
JUBB CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276131-0269664

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01030 CHROMIUM	CR,DISS	UG/L	U	1	.000000			.000000	.000000	75/07/30	75/07/30
01031 CHROMIUM	CR,SUSP	UG/L		1	10.0000			10.0000	10.0000	75/07/30	75/07/30
01034 CHROMIUM	CR,TOT	UG/L		1	4.00000			4.00000	4.00000	80/05/19	80/05/19
			K	1	20.0000			20.0000	20.0000	75/07/30	75/07/30
			TOT	2	12.0000	128.000	11.3137	20.0000	4.00000	75/07/30	80/05/19
01035 COBALT	CO,DISS	UG/L	U	2	.000000	.000000	.000000	.000000	.000000	75/07/30	75/08/31
01036 COBALT	CO,SUSP	UG/L	K	2	50.0000	.000000	.000000	50.0000	50.0000	75/07/30	75/08/31
01037 COBALT	CO,TOTAL	UG/L		2	1.00000	.000000	.000000	1.00000	1.00000	80/04/14	80/05/19
			K	2	100.000	.000000	.000000	100.000	100.000	75/07/30	75/08/31
			TOT	4	50.5000	3267.00	57.1577	100.000	1.00000	75/07/30	80/05/19
01038 CO MUD	DRY WGT	MG/KG-CO		7	10.7143	20.2382	4.49868	20.0000	5.00000	79/08/02	80/06/24
01040 COPPER	CU,DISS	UG/L		9	3.55556	1.27779	1.13039	5.00000	2.00000	75/07/30	81/04/28
			K	1	2.00000			2.00000	2.00000	75/08/31	75/08/31
			U	1	.000000			.000000	.000000	79/05/09	79/05/09
			TOT	11	3.09091	2.29091	1.51358	5.00000	.000000	75/07/30	81/04/28
01041 COPPER	CU,SUSP	UG/L		6	4.16667	36.9667	6.08002	12.0000	.000000	79/05/09	81/04/28
			K	2	7.00000	8.00000	2.82843	9.00000	5.00000	75/07/30	75/08/31
			TOT	8	4.87500	29.2678	5.40998	12.0000	.000000	75/07/30	81/04/28
01042 COPPER	CU,TOT	UG/L		6	7.00000	34.4000	5.86515	15.0000	2.00000	79/09/06	81/04/28
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/07/30	75/08/31
			U	1	.000000			.000000	.000000	79/05/09	79/05/09
			TOT	9	9.11111	64.8611	8.05364	20.0000	.000000	75/07/30	81/04/28
01043 COPPER	SEDMG/KG	DRY WGT		8	14.1250	31.2679	5.59177	21.0000	3.00000	75/08/31	80/06/24
01044 IRON	FE,SUSP	UG/L		14	835.000	4415825	2101.39	7900.00	.000000	75/08/31	81/07/15
01045 IRON	FE,TOT	UG/L		27	540.000	2324967	1524.78	7900.00	40.0000	75/07/30	81/09/17
01046 IRON	FE,DISS	UG/L		26	52.3077	1642.46	40.5273	160.000	10.0000	75/07/30	81/07/15
			K	18	10.0000	.000000	.000000	10.0000	10.0000	75/08/31	81/09/17
			TOT	44	35.0000	1397.67	37.3855	160.000	10.0000	75/07/30	81/09/17
01049 LEAD	PB,DISS	UG/L		9	2.55556	10.0278	3.16667	10.0000	.000000	75/10/09	81/07/15
			U	6	.000000	.000000	.000000	.000000	.000000	75/07/30	79/09/06
			TOT	15	1.53333	7.40953	2.72204	10.0000	.000000	75/07/30	81/07/15
01050 LEAD	PB,SUSP	UG/L		10	12.8000	956.400	30.9257	100.000	.000000	75/07/30	81/07/15
			K	1	100.000			100.000	100.000	75/08/31	75/08/31
			TOT	11	20.7273	1552.02	39.3957	100.000	.000000	75/07/30	81/07/15
01051 LEAD	PB,TOT	UG/L		10	3.40000	16.2667	4.03320	12.0000	.000000	79/05/09	81/07/15
			K	2	200.000	.000000	.000000	200.000	200.000	75/07/30	75/08/31
			TOT	12	36.1667	5869.60	76.6134	200.000	.000000	75/07/30	81/07/15
01052 LEAD	SEDMG/KG	DRY WGT		8	30.0000	2371.43	48.6973	150.000	10.0000	75/08/31	80/06/24
01053 MN MUD	DRY WGT	MG/KG-MN		7	214.286	4961.91	70.4409	340.000	120.000	79/08/02	80/06/24
01054 MANGNESE	MN,SUSP	UG/L		23	18.1304	1273.03	35.6795	150.000	.000000	75/07/30	81/09/17
01055 MANGNESE	MN	UG/L		23	39.9130	5805.62	76.1947	340.000	.000000	75/07/30	81/09/17

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250610
40 18 45.0 107 49 18.0 2
JUBB CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276131-0269664

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01055 MANGNESE	MN	UG/L	K	4	10.0000	.000000	.000000	10.0000	10.0000	79/05/09	79/09/06
			TOT	27	35.4815	5029.72	70.9205	340.000	.000000	75/07/30	81/09/17
01056 MANGNESE	MN,DISS	UG/L		23	24.6087	2449.97	49.4972	220.000	2.00000	76/03/01	81/09/17
			K	21	7.52381	16.2619	4.03260	10.0000	1.00000	75/07/30	80/08/26
			TOT	44	16.4545	1335.55	36.5452	220.000	1.00000	75/07/30	81/09/17
01060 MOLY	MO,DISS	UG/L	K	7	7.42857	19.2858	4.39156	10.0000	1.00000	75/07/30	81/04/28
01061 MOLY	MO,SUSP	UG/L		4	.250000	.250000	.500000	1.00000	.000000	75/07/30	80/02/19
01062 MOLY	MO,TOT	UG/L		5	14.4000	966.300	31.0854	70.0000	.000000	79/05/09	81/04/28
			K	2	1.00000	.000000	.000000	1.00000	1.00000	75/07/30	79/09/06
01065 NICKEL	NI,DISS	UG/L	TOT	7	10.5714	686.952	26.2098	70.0000	.000000	75/07/30	81/04/28
				8	3.25000	4.78571	2.18763	7.00000	1.00000	75/10/09	81/04/28
			K	2	2.00000	.000000	.000000	2.00000	2.00000	75/07/30	75/08/31
			U	2	.000000	.000000	.000000	.000000	.000000	76/06/10	79/05/09
01066 NICKEL	NI,SUSP	UG/L	TOT	12	2.50000	4.63636	2.15322	7.00000	.000000	75/07/30	81/04/28
				6	2.83333	14.1667	3.76386	9.00000	.000000	79/05/09	81/04/28
			K	2	49.0000	.000000	.000000	49.0000	49.0000	75/07/30	75/08/31
01067 NICKEL	NI,TOTAL	UG/L	TOT	8	14.3750	466.839	21.6065	49.0000	.000000	75/07/30	81/04/28
				7	5.00000	6.33333	2.51661	10.0000	2.00000	79/05/09	81/04/28
			K	2	50.0000	.000000	.000000	50.0000	50.0000	75/07/30	75/08/31
01068 NICKEL	SEDMG/KG	DRY WGT	TOT	9	15.0000	398.500	19.9625	50.0000	2.00000	75/07/30	81/04/28
01085 VANADIUM	V,DISS	UG/L		1	12.0000			12.0000	12.0000	75/08/31	75/08/31
01090 ZINC	ZN,DISS	UG/L		5	2.24000	.553001	.743641	3.50000	1.60000	75/07/30	76/09/01
				7	16.7143	261.572	16.1732	50.0000	3.00000	75/10/09	81/07/15
			K	5	6.40000	57.8000	7.60263	20.0000	3.00000	76/06/10	80/09/29
			U	3	.000000	.000000	.000000	.000000	.000000	75/07/30	76/09/01
01091 ZINC	ZN,SUSP	UG/L	TOT	15	9.93333	177.210	13.3120	50.0000	.000000	75/07/30	81/07/15
01092 ZINC	ZN,TOT	UG/L		9	17.4444	501.278	22.3892	70.0000	.000000	75/07/30	81/07/15
				10	25.0000	294.444	17.1594	70.0000	10.0000	75/08/31	81/07/15
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/07/30	79/09/06
01093 ZINC	SEDMG/KG	DRY WGT	TOT	12	24.1667	244.698	15.6428	70.0000	10.0000	75/07/30	81/07/15
01095 ANTIMONY	SB,DISS	UG/L		7	31.0000	177.667	13.3292	57.0000	15.0000	79/08/02	80/06/24
01098 ANTIMONY	SEDMG/KG	DRY WGT	K	4	1.00000	.000000	.000000	1.00000	1.00000	75/10/09	76/09/01
01105 ALUMINUM	AL,TOT	UG/L		1	5.00000			5.00000	5.00000	75/08/31	75/08/31
01106 ALUMINUM	AL,DISS	UG/L		11	680.000	2905617	1704.59	5800.00	20.0000	75/07/30	81/07/15
				9	23.1111	532.112	23.0675	70.0000	.000000	75/07/30	81/07/15
			K	1	100.000			100.000	100.000	79/09/06	79/09/06
01107 ALUMINUM	AL,SUSP	UG/L	TOT	10	30.8000	1064.18	32.6218	100.000	.000000	75/07/30	81/07/15
01.08 AL MUD	DRY WGT	MG/KG-AL		10	709.000	3097207	1759.89	5700.00	.000000	75/07/30	81/07/15
01130 LITHIUM	LI,DISS	UG/L		7	2328.57	835717	914.176	3600.00	1100.00	79/08/02	80/06/24
01131 LITHIUM	LI,SUSP	UG/L		1	80.0000			80.0000	80.0000	75/07/30	75/07/30
				1	.000000			.000000	.000000	75/07/30	75/07/30

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250610
40 18 45.0 107 49 18.0 2
JUBB CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276131-0269664

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01132 LITHIUM	LI,TOT	UG/L		1	80.0000			80.0000	80.0000	75/07/30	75/07/30
01145 SELENIUM	SE,DISS	UG/L		10	1.60000	1.60000	1.26491	5.00000	1.00000	75/07/30	81/04/28
			K	1	1.00000			1.00000	1.00000	76/06/10	76/06/10
			TOT	11	1.54545	1.47273	1.21356	5.00000	1.00000	75/07/30	81/04/28
01146 SELENIUM	SE,SUSP	UG/L		8	.000000	.000000	.000000	.000000	.000000	75/07/30	81/04/28
01147 SELENIUM	SE,TOT	UG/L		8	1.62500	1.98214	1.40789	5.00000	1.00000	75/07/30	81/04/28
01148 SELENIUM	SEDMG/KG	DRY WGT		7	.714286	1.23810	1.11270	3.00000	.000000	79/08/02	80/06/24
01170 FE MUD	DRY WGT	MG/KG-FE		8	3562.50	2702678	1643.98	6300.00	1700.00	75/08/31	80/06/24
01330 ODOR	ATMOSPH	SEVERITY		13	.538461	.269231	.518875	1.00000	.000000	75/07/30	76/11/05
01345 FLOATING	DEBRIS	SEVERITY		4	1.00000	.000000	.000000	1.00000	1.00000	76/08/09	76/11/05
70301 DISS SOL	SUM	MG/L		40	1055.80	55312.4	235.186	1510.00	255.000	75/07/30	81/09/17
70302 DISS SOL	TONS/DAY			43	.676975	1.29960	1.14000	5.18000	.010000	75/07/30	81/09/17
70303 DISS SOL	TONS PER	ACRE-FT		42	1.44428	.107789	.328312	2.05000	.350000	75/07/30	81/09/17
70331 SUSP SED	PARTSIZE	%<.062MM		4	94.4999	64.3489	8.02178	100.0000	82.9999	76/02/09	81/02/19
71886 TOTAL P	AS PO4	MG/L		2	.045000	.000450	.021213	.060000	.030000	80/04/14	80/05/19
71887 TOTAL N	AS NO3	MG/L		1	1.60000			1.60000	1.60000	75/08/31	75/08/31
71890 MERCURY	HG,DISS	UG/L		4	.000000	.000000	.000000	.000000	.000000	80/02/19	81/04/28
			K	8	.400000	.034286	.185164	.500000	.100000	75/07/30	79/09/06
			TOT	12	.266667	.060606	.246183	.500000	.000000	75/07/30	81/04/28
71895 MERCURY	HG,SUSP	UG/L		8	.037500	.005536	.074402	.200000	.000000	75/07/30	81/04/28
71900 MERCURY	HG,TOTAL	UG/L		5	.060000	.003000	.089443	.200000	.000000	79/05/09	81/04/28
			K	3	.366666	.053334	.230941	.500000	.100000	75/07/30	79/09/06
			TOT	8	.175000	.045000	.212132	.500000	.000000	75/07/30	81/04/28
71921 MERCURY	SEDMG/KG	DRY WGT		8	.025000	.000086	.009258	.040000	.010000	75/08/31	80/06/24
80154 SUSP SED	CONC	MG/L		67	92.3707	39138.0	197.833	1240.00	.000000	76/02/09	81/09/17
80155 SUSP SED	DISCHARG	TONS/DAY		62	.411770	5.51610	2.34864	18.0000	.000000	76/02/09	81/09/17
			K	3	.010000	.000000	.000000	.010000	.010000	79/05/09	79/07/23
			TOT	65	.393226	5.26475	2.29450	18.0000	.000000	76/02/09	81/09/17
82068 POTAS-40	K-40,DIS	PC/LITER		6	4.16666	.466699	.683154	5.10000	3.40000	81/02/24	81/07/15

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250600
40 18 56.0 107 47 50.0 2
WILSON CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 14050002000
0000 CLASS 00 CSN-RSP 0264448-0269651

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00008	LAB	IDENT.	NUMBER		1	750048			750048	750048	74/06/07	74/06/07
00010	WATER	TEMP	CENT		248	12.8466	42.1033	6.48870	25.0000	.000000	74/06/12	81/06/12
00028	ANALYZE	AGENCY	CODE		38	75809.8	.327E+09	18101.7	80020.0	28.0000	78/07/05	81/06/12
00041	WEATHER	WHO CODE	4501		19	8.47368	525.263	22.9186	74.0000	.000000	75/07/03	77/05/05
00061	STREAM	FLOW,	INST-CFS		335	2.55585	39.8357	6.31155	67.0000	.120000	75/07/03	81/04/28
				J	3	1.38333	.390834	.625167	2.10000	.950000	80/04/14	81/06/12
				TOT	338	2.54544	39.4955	6.28455	67.0000	.120000	75/07/03	81/06/12
00094	CNDUCTVY	FIELD	MICROMHO		1	1725.00			1725.00	1725.00	80/10/29	80/10/29
00095	CNDUCTVY	AT 25C	MICROMHO		71	1706.46	172891	415.801	2600.00	309.000	74/06/12	81/06/12
00300	DO		MG/L		62	9.64350	2.67194	1.63461	13.1000	5.20000	74/06/12	81/05/29
00400	PH		SU		68	8.09994	.041161	.202883	8.50000	7.40000	74/06/12	81/05/29
00403	LAB	PH	SU		6	8.15000	.007080	.084143	8.30000	8.10000	80/10/29	81/05/29
00405	CO2		MG/L		47	5.71701	14.1436	3.76080	27.0000	1.80000	74/06/12	79/07/23
00410	T ALK	CACO3	MG/L		60	358.283	5523.08	74.3174	440.000	70.0000	74/06/12	80/10/29
00440	HCO3 ION	HCO3	MG/L		47	450.383	5757.89	75.8808	536.000	220.000	74/06/12	79/07/23
00445	CO3 ION	CO3	MG/L		47	.063830	.104533	.323315	2.00000	.000000	75/05/26	79/09/06
00600	TOTAL N	N	MG/L		1	.550000			.550000	.550000	75/08/31	75/08/31
00608	NH3+NH4-	N DISS	MG/L		1	.010000			.010000	.010000	81/01/21	81/01/21
00623	KJELDL N	DISS	MG/L		1	.160000			.160000	.160000	75/08/31	75/08/31
00624	KJELDL N	SUSP	MG/L		1	.090000			.090000	.090000	75/08/31	75/08/31
00625	TOT KJEL	N	MG/L		6	12.8250	130.886	11.4405	25.0000	.250000	75/08/31	80/06/05
00630	NO2&NO3	N-TOTAL	MG/L		1	.300000			.300000	.300000	75/08/31	75/08/31
00631	NO2&NO3	N-DISS	MG/L		64	.616247	.155087	.393811	1.60000	.010000	74/06/12	81/05/29
				K	1	.100000			.100000	.100000	79/07/23	79/07/23
				TOT	65	.608304	.156764	.395935	1.60000	.010000	74/06/12	81/05/29
00650	T PO4	PO4	MG/L		1	1.80000			1.80000	1.80000	75/05/26	75/05/26
00660	ORTHOPO4	PO4	MG/L		65	.053692	.004039	.063555	.340000	.000000	74/06/12	81/05/29
00665	PHOS-TOT		MG/L P		7	5.27429	39.0373	6.24798	18.0000	.020000	75/05/26	80/06/05
				K	1	.010000			.010000	.010000	74/08/26	74/08/26
				TOT	8	4.61625	36.9246	6.07656	18.0000	.010000	74/08/26	80/06/05
00666	PHOS-DIS		MG/L P	K	1	.010000			.010000	.010000	75/08/31	75/08/31
00668	PHOS HUD	DRY WGT	MG/KG-P		5	402.000	7570.00	87.0057	500.000	280.000	79/08/02	79/08/02
00671	PHOS-DIS	ORTHO	MG/L P		54	.021481	.000451	.021227	.110000	.000000	74/06/12	81/05/29
				K	10	.010000	.517E-10	.000007	.010000	.010000	74/08/26	79/09/06
				TOT	64	.019687	.000397	.019918	.110000	.000000	74/06/12	81/05/29
00680	T ORG C	C	MG/L		19	34.0316	5722.51	75.6473	330.000	2.60000	75/07/03	81/04/28
00681	D ORG C	C	MG/L		25	12.7520	791.786	28.1387	147.000	3.40000	74/06/12	81/04/28
00686	BM INORG	CARBON	GM/KG-C		5	1.62000	5.08700	2.25544	5.30000	.100000	79/08/02	79/08/02
00687	BM ORG	CARBON	GM/KG-C		5	16.1600	306.893	17.5184	46.0000	3.10000	79/08/02	79/08/02
00689	S ORG C	C	MG/L		3	.433333	.123334	.351190	.800000	.100000	74/06/12	75/08/31
00693	CARBON,B	M-IN+ORG	. GM/KG		5	17.6400	288.189	16.9761	46.0000	3.80000	79/08/02	79/08/02

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RETRIEVAL FOR DAVE RUITER

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WILSON CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 14050002000
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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00720 CYANIDE	CN-TOT	MG/L		3	.000000	.000000	.000000	.000000	.000000	75/07/03	75/12/03
00900 TOT HARD	CACO3	MG/L		66	666.666	22864.5	151.210	880.000	130.000	74/06/12	81/05/29
00902 NC HARD	CACO3	MG/L		63	309.524	8343.39	91.3421	470.000	60.0000	74/06/12	81/01/21
00915 CALCIUM	CA,DISS	MG/L		66	100.470	291.623	17.0770	120.000	29.0000	74/06/12	81/05/29
00925 MGNSIUM	MG,DISS	MG/L		66	100.863	790.270	28.1117	140.000	14.0000	74/06/12	81/05/29
00930 SODIUM	NA,DISS	MG/L		66	147.773	1506.14	38.8090	190.000	14.0000	74/06/12	81/05/29
00931 SODIUM	ADSBTION	RATIO		66	2.46211	.243592	.493551	3.10000	.500000	74/06/12	81/05/29
00932 PERCENT	SODIUM	%		66	32.4697	31.7923	5.63847	58.0000	14.0000	74/06/12	81/05/29
00933 NA+K		MG/L		9	116.444	2900.04	53.8520	170.000	22.0000	79/04/18	80/02/19
00935 PTSSIUM	K,DISS	MG/L		66	9.49087	7.89814	2.81036	29.0000	5.70000	74/06/12	81/05/29
00940 CHLORIDE	TOTAL	MG/L		66	134.454	1338.32	36.5831	190.000	16.0000	74/06/12	81/05/29
00945 SULFATE	SO4-TOT	MG/L		66	419.515	14426.8	120.112	600.000	58.0000	74/06/12	81/05/29
00950 FLUORIDE	F,DISS	MG/L		65	.513843	.009339	.096639	.700000	.200000	74/06/12	81/05/29
00955 SILICA	DISOLVED	MG/L		65	14.0538	19.4766	4.41323	45.0000	8.50000	74/06/12	81/05/29
01000 ARSENIC	AS,DISS	UG/L		17	1.17647	.154414	.392956	2.00000	1.00000	74/06/12	81/04/28
			K	5	1.00000	.000000	.000000	1.00000	1.00000	75/12/03	78/09/30
			TOT	22	1.13636	.123378	.351252	2.00000	1.00000	74/06/12	81/04/28
01001 ARSENIC	AS,SUSP	UG/L		5	12.2000	226.200	15.0399	36.0000	.000000	75/07/03	81/04/28
			K	1	1.00000			1.00000	1.00000	79/09/06	79/09/06
			TOT	6	10.3333	201.867	14.2080	36.0000	.000000	75/07/03	81/04/28
01002 ARSENIC	AS,TOT	UG/L		13	16.3846	362.423	19.0374	67.0000	1.00000	75/07/03	81/04/28
			K	1	1.00000			1.00000	1.00000	78/09/30	78/09/30
			TOT	14	15.2857	351.450	18.7470	67.0000	1.00000	75/07/03	81/04/28
01003 ARSENIC	SEDMG/KG	DRY WGT		6	4.33333	7.86668	2.80476	10.0000	3.00000	75/08/31	79/08/02
01005 BARIUM	BA,DISS	UG/L		1	200.000			200.000	200.000	75/07/03	75/07/03
01006 BARIUM	BA,SUSP	UG/L		1	.000000			.000000	.000000	75/07/03	75/07/03
01007 BARIUM	BA,TOT	UG/L		2	850.000	845000	919.239	1500.00	200.000	74/06/07	75/07/03
01010 BERYLIUM	BE,DISS	UG/L	K	1	10.0000			10.0000	10.0000	75/07/03	75/07/03
01011 BERYLIUM	BE,SUSP	UG/L		1	.000000			.000000	.000000	75/07/03	75/07/03
01012 BERYLIUM	BE,TOT	UG/L	K	2	12.5000	12.5000	3.53553	15.0000	10.0000	74/06/07	75/07/03
01017 BISMUTH	BI,TOT	UG/L	K	1	40.0000			40.0000	40.0000	74/06/07	74/06/07
01020 BORON	B,DISS	UG/L		60	199.333	2972.47	54.5204	480.000	90.0000	75/07/03	81/05/29
			K	1	20.0000			20.0000	20.0000	75/09/01	75/09/01
			TOT	61	196.393	3450.15	58.7380	480.000	20.0000	75/07/03	81/05/29
01022 BORON	B,TOT	UG/L		1	370.000			370.000	370.000	74/06/07	74/06/07
01025 CADMIUM	CD,DISS	UG/L		4	1.00000	.666667	.816497	2.00000	.000000	76/09/01	80/09/29
			K	10	1.90000	.100004	.316235	2.00000	1.00000	74/06/12	81/04/28
			U	9	.000000	.000000	.000000	.000000	.000000	74/08/26	79/05/09
			TOT	23	1.00000	.909091	.953463	2.00000	.000000	74/06/12	81/04/28
01026 CADMIUM	CD,SUSP	UG/L		9	1.77778	11.4444	3.38296	10.0000	.000000	75/07/03	80/09/29
			K	1	10.0000			10.0000	10.0000	75/08/31	75/08/31

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01026 CADMIUM	CD,SUSP	UG/L	TOT	10	2.60000	16.9333	4.11501	10.0000	.000000	75/07/03	80/09/29
01027 CADMIUM	CD,TOT	UG/L		10	3.10000	11.6556	3.41402	11.0000	.000000	78/09/30	81/06/12
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/07/03	75/08/31
			U	4	.000000	.000000	.000000	.000000	.000000	79/04/18	79/09/06
			TOT	16	4.43750	45.7292	6.76233	20.0000	.000000	75/07/03	81/06/12
01028 CD MUD	DRY WGT	MG/KG-CD		5	.000000	.000000	.000000	.000000	.000000	79/08/02	79/08/02
01029 CHROMIUM	SEDMG/KG	DRY WGT		6	3.83333	2.56668	1.60209	6.00000	2.00000	75/08/31	79/08/02
01030 CHROMIUM	CR,DISS	UG/L	U	3	.000000	.000000	.000000	.000000	.000000	74/06/12	75/07/03
01031 CHROMIUM	CR,SUSP	UG/L		1	10.0000			10.0000	10.0000	75/07/03	75/07/03
01034 CHROMIUM	CR,TOT	UG/L		7	24.0000	2295.67	47.9131	130.000	.000000	74/06/07	81/06/12
			K	1	20.0000			20.0000	20.0000	75/07/03	75/07/03
			TOT	8	23.5000	1969.71	44.3815	130.000	.000000	74/06/07	81/06/12
01035 COBALT	CO,DISS	UG/L	U	4	.000000	.000000	.000000	.000000	.000000	74/08/26	75/08/31
01036 COBALT	CO,SUSP	UG/L	K	2	50.0000	.000000	.000000	50.0000	50.0000	75/07/03	75/08/31
01037 COBALT	CO,TOTAL	UG/L		6	56.6667	2157.07	46.4443	130.000	10.0000	80/04/14	81/06/12
			K	3	76.6667	1633.34	40.4145	100.000	30.0000	74/06/07	75/08/31
			TOT	9	63.3333	1856.50	43.0871	130.000	10.0000	74/06/07	81/06/12
01038 CO MUD	DRY WGT	MG/KG-CO		5	1.60000	5.30000	2.30217	5.00000	.000000	79/08/02	79/08/02
01040 COPPER	CU,DISS	UG/L		12	5.08333	33.9015	5.82250	23.0000	2.00000	74/06/12	81/04/28
			K	4	2.00000	.000000	.000000	2.00000	2.00000	75/08/31	78/09/30
			U	5	.000000	.000000	.000000	.000000	.000000	75/05/26	79/05/18
			TOT	21	3.28571	23.6143	4.85945	23.0000	.000000	74/06/12	81/04/28
01041 COPPER	CU,SUSP	UG/L		10	87.6000	16712.0	129.275	380.000	.000000	75/07/03	81/04/28
			K	1	9.00000			9.00000	9.00000	75/08/31	75/08/31
			TOT	11	80.4545	15602.5	124.910	380.000	.000000	75/07/03	81/04/28
01042 COPPER	CU,TOT	UG/L		15	113.400	15931.5	126.220	380.000	2.00000	74/06/07	81/06/12
			K	2	11.0000	162.000	12.7279	20.0000	2.00000	75/08/31	78/09/30
			TOT	17	101.353	15106.7	122.909	380.000	2.00000	74/06/07	81/06/12
01043 COPPER	SEDMG/KG	DRY WGT		6	6.66666	11.8667	3.44481	12.0000	3.00000	75/08/31	79/08/02
01044 IRON	FE,SUSP	UG/L		22	25976.8	.243E+10	49379.3	200000	40.0000	75/08/31	81/05/29
01045 IRON	FE,TOT	UG/L		33	37581.8	.432E+10	65727.6	260000	40.0000	74/06/07	81/06/12
01046 IRON	FE,DISS	UG/L		50	50.8000	2991.18	54.6917	280.000	10.0000	74/06/12	81/05/29
			K	16	10.0000	.000000	.000000	10.0000	10.0000	75/08/31	81/01/21
			TOT	66	40.9091	2565.31	50.6489	280.000	10.0000	74/06/12	81/05/29
01049 LEAD	PB,DISS	UG/L		17	2.82353	8.90441	2.98403	12.0000	.000000	74/06/12	81/04/28
			K	2	2.00000	.000000	.000000	2.00000	2.00000	77/04/07	79/05/18
			U	9	.000000	.000000	.000000	.000000	.000000	75/07/03	79/09/06
			TOT	28	1.85714	7.01587	2.64875	12.0000	.000000	74/06/12	81/04/28
01050 LEAD	PB,SUSP	UG/L		14	36.7143	6990.83	83.6112	320.000	.000000	78/09/30	81/04/28
			K	2	100.000	.000000	.000000	100.000	100.000	75/07/03	75/08/31
			TOT	16	44.6250	6525.98	80.7835	320.000	.000000	75/07/03	81/04/28

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01051 LEAD	PB,TOT	UG/L		19	54.5789	8723.25	93.3984	320.000	.000000	78/09/30	81/06/12
			K	3	150.000	7500.00	86.6025	200.000	50.0000	74/06/07	75/08/31
			TOT	22	67.5909	9314.73	96.5128	320.000	.000000	74/06/07	81/06/12
01052 LEAD	SEDMG/KG	DRY WGT		6	28.0000	3583.60	59.8632	150.000	.000000	75/08/31	79/08/02
01053 MN MUD	DRY WGT	MG/KG-MN		5	232.000	2170.00	46.5832	260.000	150.000	79/08/02	79/08/02
01054 MANGNESE	MN,SUSP	UG/L		28	815.357	3440594	1854.88	9000.00	.000000	75/07/03	81/05/29
01055 MANGNESE	MN	UG/L		33	1341.21	5184730	2277.00	9100.00	20.0000	74/06/07	81/06/12
01056 MANGNESE	MN,DISS	UG/L		66	69.0302	1283.61	35.8275	180.000	6.00000	74/06/12	81/05/29
			K	1	10.0000			10.0000	10.0000	74/08/26	74/08/26
			TOT	67	68.1492	1316.17	36.2790	180.000	6.00000	74/06/12	81/05/29
01060 MOLY	MO,DISS	UG/L		7	2.42857	4.28572	2.07020	7.00000	1.00000	74/06/12	80/09/29
			K	6	5.50000	24.3000	4.92950	10.0000	1.00000	75/07/03	81/04/28
			TOT	13	3.84615	14.8077	3.84808	10.0000	1.00000	74/06/12	81/04/28
01061 MOLY	MO,SUSP	UG/L		9	.666667	1.25000	1.11803	3.00000	.000000	75/07/03	80/09/29
01062 MOLY	MO,TOT	UG/L		12	1.41667	2.08334	1.44338	5.00000	.000000	75/07/03	81/06/12
			K	4	5.75000	90.2500	9.50000	20.0000	1.00000	74/06/07	79/09/06
			TOT	16	2.50000	23.3333	4.83046	20.0000	.000000	74/06/07	81/06/12
01065 NICKEL	NI,DISS	UG/L		13	3.69231	13.3974	3.66025	14.0000	.000000	74/06/12	81/04/28
			K	3	2.00000	.000000	.000000	2.00000	2.00000	75/07/03	75/12/03
			U	7	.000000	.000000	.000000	.000000	.000000	75/05/26	79/09/06
			TOT	23	2.34783	10.1462	3.18532	14.0000	.000000	74/06/12	81/04/28
01066 NICKEL	NI,SUSP	UG/L		9	51.7778	4975.44	70.5368	180.000	2.00000	78/09/30	81/04/28
			K	2	49.0000	.000000	.000000	49.0000	49.0000	75/07/03	75/08/31
			TOT	11	51.2727	3981.62	63.1001	180.000	2.00000	75/07/03	81/04/28
01067 NICKEL	NI,TOTAL	UG/L		15	99.1333	12893.3	113.549	370.000	2.00000	74/06/07	81/06/12
			K	2	50.0000	.000000	.000000	50.0000	50.0000	75/07/03	75/08/31
			TOT	17	93.3529	11547.9	107.461	370.000	2.00000	74/06/07	81/06/12
01068 NICKEL	SEDMG/KG	DRY WGT		1	12.0000			12.0000	12.0000	75/08/31	75/08/31
01077 SILVER	AG,TOT	UG/L	K	1	5.00000			5.00000	5.00000	74/06/07	74/06/07
01082 STRONTUM	SR,TOT	UG/L		1	810.000			810.000	810.000	74/06/07	74/06/07
01085 VANADIUM	V,DISS	UG/L		11	1.79091	1.43892	1.19955	3.80000	.100000	74/06/12	77/07/08
01087 VANADIUM	V,TOT	UG/L		1	180.000			180.000	180.000	74/06/07	74/06/07
01090 ZINC	ZN,DISS	UG/L		13	15.7692	79.5257	8.91772	30.0000	3.00000	74/06/12	81/04/28
			K	11	16.9091	47.2910	6.87685	20.0000	3.00000	75/07/03	80/08/26
			U	3	.000000	.000000	.000000	.000000	.000000	75/05/26	77/07/08
			TOT	27	14.4815	82.4133	9.07818	30.0000	.000000	74/06/12	81/04/28
01091 ZINC	ZN,SUSP	UG/L		15	136.000	59540.0	244.008	790.000	.000000	75/07/03	81/04/28
01092 ZINC	ZN,TOT	UG/L		20	350.000	243337	493.292	1800.00	.000000	74/06/07	81/06/12
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/08/31	78/11/09
			TOT	22	320.000	229590	479.156	1800.00	.000000	74/06/07	81/06/12
01093 ZINC	SEDMG/KG	DRY WGT		5	20.0000	50.0000	7.07107	30.0000	12.0000	79/08/02	79/08/02

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01095 ANTIMONY	SB,DISS	UG/L		2	1.50000	.500000	.707107	2.00000	1.00000	76/12/09	78/01/05
			K	6	1.00000	.000000	.000000	1.00000	1.00000	75/10/09	77/04/07
			TOT	8	1.12500	.125000	.353553	2.00000	1.00000	75/10/09	78/01/05
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	6.00000			6.00000	6.00000	75/08/31	75/08/31
01102 TIN	SN,TOT	UG/L	K	1	50.0000			50.0000	50.0000	74/06/07	74/06/07
01105 ALUMINUM	AL,TOT	UG/L		21	23471.4	.129E+10	36043.0	130000	40.0000	74/06/07	81/06/12
01106 ALUMINUM	AL,DISS	UG/L		12	166.667	160661	400.825	1400.00	.000000	75/07/03	81/04/28
			K	3	100.000	.000000	.000000	100.000	100.000	78/09/30	79/09/06
			TOT	15	153.333	126995	356.364	1400.00	.000000	75/07/03	81/04/28
01107 ALUMINUM	AL,SUSP	UG/L		15	9107.33	.296E+09	17231.0	59000.0	.000000	75/07/03	81/04/28
01108 AL MUD	DRY WGT	MG/KG-AL		5	1732.00	1501120	1225.20	3200.00	560.000	79/08/02	79/08/02
01122 GALLIUM	GA,TOT	UG/L		1	30.0000			30.0000	30.0000	74/06/07	74/06/07
01127 GERMANIUM	GE,TOT	UG/L	K	1	50.0000			50.0000	50.0000	74/06/07	74/06/07
01130 LITHIUM	LI,DISS	UG/L		1	40.0000			40.0000	40.0000	75/07/03	75/07/03
01131 LITHIUM	LI,SUSP	UG/L		1	.000000			.000000	.000000	75/07/03	75/07/03
01132 LITHIUM	LI,TOT	UG/L		2	70.0000	1800.00	42.4264	100.000	40.0000	74/06/07	75/07/03
01145 SELENIUM	SE,DISS	UG/L		21	5.28571	8.31429	2.88345	11.0000	1.00000	74/06/12	81/04/28
01146 SELENIUM	SE,SUSP	UG/L		11	3.00000	19.6000	4.42719	13.0000	.000000	75/07/03	81/04/28
01147 SELENIUM	SE,TOT	UG/L		15	9.06667	21.0667	4.58985	18.0000	3.00000	75/07/03	81/04/28
01148 SELENIUM	SEDMG/KG	DRY WGT		5	.100000	.050000	.223607	.500000	.000000	79/08/02	79/08/02
01152 TITANIUM	TI,TOT	UG/L		1	9000.00			9000.00	9000.00	74/06/07	74/06/07
01162 ZIRCONUM	ZR-TOT	UG/L		1	390.000			390.000	390.000	74/06/07	74/06/07
01170 FE MUD	DRY WGT	MG/KG-FE		6	4116.66	2849692	1688.10	6300.00	2200.00	75/08/31	79/08/02
01330 ODOR	ATMOSPH	SEVERITY		24	.500000	.260869	.510754	1.00000	.000000	75/07/03	80/01/31
01345 FLOATING	DEBRIS	SEVERITY		5	1.00000	.000000	.000000	1.00000	1.00000	76/08/09	76/12/09
70301 DISS SOL	SUM	MG/L		64	1151.27	68477.9	261.683	1450.00	197.000	74/06/12	81/05/29
70302 DISS SOL	TONS/DAY			59	5.90234	94.5103	9.72164	51.7000	.450000	75/09/01	81/04/28
			J	1	6.41000			6.41000	6.41000	80/04/14	80/04/14
			TOT	60	5.91080	92.9127	9.63912	51.7000	.450000	75/09/01	81/04/28
70303 DISS SOL	TONS PER	ACRE-FT		65	1.56369	.125329	.354018	1.97000	.270000	74/06/12	81/05/29
70331 SUSP SED	PARTSIZE	%<.062MM		16	85.7498	38.4750	6.20282	96.0000	77.0000	75/08/03	81/06/12
70337 SUSP SED	PARTSIZE	%<.002MM		5	39.4000	6.29883	2.50975	43.0000	37.0000	76/02/27	79/05/23
70338 SUSP SED	PARTSIZE	%<.004MM		5	52.3999	10.8047	3.28705	58.0000	50.0000	76/02/27	79/05/23
70340 SUSP SED	PARTSIZE	%<.016MM		5	68.3999	44.8105	6.69407	80.0000	64.0000	76/02/27	79/05/23
70341 SUSP SED	PARTSIZE	%<.031MM		1	96.0000			96.0000	96.0000	76/02/27	76/02/27
70342 SUSP SED	PARTSIZE	%<.062MM		10	87.0998	64.5764	8.03594	98.9999	77.0000	76/02/27	80/06/05
70343 SUSP SED	PARTSIZE	%<.125MM		5	97.1998	8.73047	2.95474	99.9998	94.0000	76/02/27	79/05/23
70344 SUSP SED	PARTSIZE	%<.250MM		4	99.4999	.360677	.600564	100.0000	99.0000	76/02/27	79/05/23
70345 SUSP SED	PARTSIZE	%<.500MM		2	100.0000	.000000	.000000	100.0000	100.0000	79/04/23	79/05/23
71846 AMMONIA	DISS-NH4	MG/L		1	.010000			.010000	.010000	81/01/21	81/01/21
71886 TOTAL P	AS PO4	MG/L		5	22.2400	387.489	19.6847	55.0000	5.20000	80/04/14	80/06/05

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250600
40 18 56.0 107 47 50.0 2
WILSON CREEK NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 14050002000
0000 CLASS 00 CSN-RSP 0264448-0269651

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71887 TOTAL N	AS NO3	MG/L		1	2.40000			2.40000	2.40000	75/08/31	75/08/31
71890 MERCURY	HG,DISS	UG/L		5	.300000	.450000	.670820	1.50000	.000000	74/08/26	81/04/28
			K	18	.366666	.037647	.194028	.500000	.100000	74/06/12	79/09/06
			TOT	23	.352174	.111700	.334215	1.50000	.000000	74/06/12	81/04/28
71895 MERCURY	HG,SUSP	UG/L		11	.227273	.170182	.412531	1.40000	.000000	75/07/03	81/04/28
71900 MERCURY	HG,TOTAL	UG/L		10	.590000	.334334	.578216	1.70000	.000000	79/05/09	81/04/28
			K	5	.260000	.048000	.219090	.500000	.100000	75/07/03	79/09/06
			TOT	15	.480000	.254572	.504551	1.70000	.000000	75/07/03	81/04/28
71921 MERCURY	SEDMG/KG	DRY WGT		6	.020000	.000160	.012649	.040000	.010000	75/08/31	79/08/02
72000 LND SURF	DATUM	FT		14	6300.00	.000000	.000000	6300.00	6300.00	75/07/03	76/02/19
80154 SUSP SED	CONC	MG/L		307	1187.76	.221E+08	4707.51	39200.0	5.00000	75/07/03	81/06/12
80155 SUSP SED	DISCHARG	TONS/DAY		306	72.7722	184386	429.401	4220.00	.010000	75/07/03	80/09/29
82068 POTAS-40	K-40,DIS	PC/LITER		3	6.53333	2.09339	1.44686	8.20000	5.60000	81/01/21	81/05/29

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250510
40 18 48.0 107 47 57.0 2
TAYLOR CREEK AT MOUTH NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276130-0269643

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		56	13.7410	69.1917	8.31815	28.0000	.000000	75/07/03	82/09/01
00028	ANALYZE	AGENCY	CODE		35	77734.5	.182E+09	13521.1	80020.0	28.0000	78/10/25	81/07/26
00041	WEATHER	WMO CODE	4501		9	9.66667	715.750	26.7535	81.0000	.000000	75/07/03	77/03/23
00060	STREAM	FLOW	CFS		1	.030000			.030000	.030000	77/03/24	77/03/24
00061	STREAM	FLOW,	INST-CFS		55	.831124	7.02679	2.65081	18.0000	.010000	75/07/03	81/07/26
				K	1	.100000			.100000	.100000	75/08/31	75/08/31
				TOT	56	.818068	6.90857	2.62842	18.0000	.010000	75/07/03	81/07/26
00095	CNDUCTVY	AT 25C	MICROMHO		43	1171.16	120908	347.718	1950.00	255.000	75/07/03	81/10/05
00300	DO		MG/L		31	8.89354	2.61348	1.61662	12.4000	6.10000	75/07/03	81/05/29
00335	COD	LOWLEVEL	MG/L		1	6.80000			6.80000	6.80000	75/09/17	75/09/17
00400	PH		SU		36	8.19720	.050788	.225362	8.60000	7.60000	75/07/03	81/06/12
00403	LAB	PH	SU		8	8.21250	.026995	.164301	8.40000	8.00000	80/10/29	81/06/12
00405	CO2		MG/L		15	4.36000	8.80688	2.96764	14.0000	1.30000	75/07/03	79/05/21
00410	T ALK	CACO3	MG/L		26	300.885	6041.88	77.7295	410.000	84.0000	75/07/03	80/09/29
00440	HCO3 ION	HCO3	MG/L		16	357.687	8657.07	93.0434	500.000	140.000	75/07/03	79/05/21
00445	CO3 ION	CO3	MG/L		16	3.68750	105.562	10.2744	35.0000	.000000	75/07/03	79/05/21
00600	TOTAL N	N	MG/L		1	.370000			.370000	.370000	75/08/31	75/08/31
00623	KJELDL N	DISS	MG/L		1	.210000			.210000	.210000	75/08/31	75/08/31
00624	KJELDL N	SUSP	MG/L		1	.130000			.130000	.130000	75/08/31	75/08/31
00625	TOT KJEL	N	MG/L		6	1.34333	1.08855	1.04333	3.00000	.340000	75/08/31	80/06/05
00630	NO2&NO3	N-TOTAL	MG/L		1	.030000			.030000	.030000	75/08/31	75/08/31
00631	NO2&NO3	N-DISS	MG/L		34	.362647	.361814	.601509	2.40000	.000000	75/07/03	81/06/12
				K	1	.100000			.100000	.100000	76/11/05	76/11/05
				TOT	35	.355143	.353143	.594258	2.40000	.000000	75/07/03	81/06/12
00660	ORTHOPO4	PO4	MG/L		34	.089706	.021561	.146835	.610001	.000000	75/07/03	81/06/12
00665	PHOS-TOT		MG/L P		5	.378000	.190370	.436314	1.10000	.030000	75/08/31	80/06/05
00666	PHOS-DIS		MG/L P	K	1	.010000			.010000	.010000	75/08/31	75/08/31
00668	PHOS MUD	DRY WGT	MG/KG-P		8	570.000	24628.6	156.935	800.000	390.000	79/08/01	79/08/01
00671	PHOS-DIS	ORTHO	MG/L P		27	.037037	.002614	.051127	.200000	.000000	76/02/09	81/06/12
				K	7	.010000	.776E-10	.000009	.010000	.010000	75/07/03	79/09/06
				TOT	34	.031471	.002183	.046718	.200000	.000000	75/07/03	81/06/12
00680	T ORG C	C	MG/L		10	13.5900	45.5455	6.74874	29.0000	6.80000	75/07/03	81/04/28
00681	D ORG C	C	MG/L		14	11.5357	41.3994	6.43423	29.0000	4.10000	75/07/03	81/04/28
00686	BM INORG	CARBON	GM/KG-C		8	3.07500	10.4821	3.23761	7.30000	.000000	79/08/01	79/08/01
00687	BM ORG	CARBON	GM/KG-C		8	45.1250	1843.27	42.9333	130.000	10.0000	79/08/01	79/08/01
00689	S ORG C	C	MG/L		1	.600000			.600000	.600000	75/08/31	75/08/31
00693	CARBON,B	M-IN+ORG	. GM/KG		8	48.1250	1663.27	40.7832	130.000	15.0000	79/08/01	79/08/01
00720	CYANIDE	CN-TOT	MG/L		1	.000000			.000000	.000000	75/07/03	75/07/03
00900	TOT HARD	CACO3	MG/L		34	540.882	25893.2	160.914	930.000	110.000	75/07/03	81/04/12
00902	NC HARD	CACO3	MG/L		30	228.567	10794.1	103.895	5?0.000	24.0000	75/07/03	81/02/24
00915	CALCIUM	CA,DISS	MG/L		34	76.3529	614.237	24.7838	140.000	25.0000	75/07/03	81/06/12

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RETRIEVAL FOR DAVE RUITER

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TAYLOR CREEK AT MOUTH NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276130-0269643

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00925 MGNSIUM	MG,DISS	MG/L			34	85.0294	781.305	27.9518	140.000	11.0000	75/07/03	81/06/12
00930 SODIUM	NA,DISS	MG/L			34	59.6618	548.195	23.4136	110.000	8.50000	75/07/03	81/06/12
00931 SODIUM	ADSBTION	RATIO			34	1.09705	.099088	.314783	1.70000	.400000	75/07/03	81/06/12
00932 PERCENT	SODIUM	%			34	19.1176	19.3193	4.39538	36.0000	11.0000	75/07/03	81/06/12
00933 NA+K		MG/L			5	61.4000	1074.80	32.7842	96.0000	17.0000	79/05/09	80/02/19
00935 PTSSIUM	K,DISS	MG/L			34	8.75293	17.1161	4.13716	29.0000	4.40000	75/07/03	81/06/12
00940 CHLORIDE	TOTAL	MG/L			34	27.8500	120.561	10.9800	58.0000	7.60000	75/07/03	81/06/12
00945 SULFATE	SO4-TOT	MG/L			34	320.500	18236.4	135.042	660.000	45.0000	75/07/03	81/06/12
00950 FLUORIDE	F,DISS	MG/L			34	.455882	.027389	.165495	1.00000	.200000	75/07/03	81/06/12
00955 SILICA	DISOLVED	MG/L			34	9.52351	8.83019	2.97156	15.0000	.600000	75/07/03	81/06/12
01000 ARSENIC	AS,DISS	UG/L			9	1.44444	.277781	.527049	2.00000	1.00000	76/03/01	81/04/28
				K	2	1.00000	.000000	.000000	1.00000	1.00000	75/07/03	76/06/10
				TOT	11	1.36364	.254547	.504527	2.00000	1.00000	75/07/03	81/04/28
01001 ARSENIC	AS,SUSP	UG/L			5	3.00000	31.5000	5.61249	13.0000	.000000	75/07/03	81/04/28
				K	1	1.00000			1.00000	1.00000	79/09/06	79/09/06
				TOT	6	2.66667	25.8667	5.08593	13.0000	.000000	75/07/03	81/04/28
01002 ARSENIC	AS,TOT	UG/L			13	8.15385	360.641	18.9905	70.0000	.000000	75/07/03	81/06/12
01003 ARSENIC	SEDMG/KG	DRY WGT			9	6.11111	4.11114	2.02760	11.0000	4.00000	75/08/31	79/08/01
01005 BARIUM	BA,DISS	UG/L		K	1	100.000			100.000	100.000	75/07/03	75/07/03
01006 BARIUM	BA,SUSP	UG/L			1	.000000			.000000	.000000	75/07/03	75/07/03
01007 BARIUM	BA,TOT	UG/L		K	1	100.000			100.000	100.000	75/07/03	75/07/03
01010 BERYLIUM	BE,DISS	UG/L		K	1	10.0000			10.0000	10.0000	75/07/03	75/07/03
01011 BERYLIUM	BE,SUSP	UG/L			1	.000000			.000000	.000000	75/07/03	75/07/03
01012 BERYLIUM	BE,TOT	UG/L		K	1	10.0000			10.0000	10.0000	75/07/03	75/07/03
01020 BORON	B,DISS	UG/L			33	120.121	3982.99	63.1109	290.000	4.00000	75/07/03	81/06/12
01025 CADMIUM	CD,DISS	UG/L			3	2.00000	4.00000	2.00000	4.00000	.000000	76/09/01	80/09/29
				K	5	1.60000	.300002	.547725	2.00000	1.00000	76/03/01	81/04/28
				U	4	.000000	.000000	.000000	.000000	.000000	75/07/03	79/05/21
				TOT	12	1.16667	1.60606	1.26731	4.00000	.000000	75/07/03	81/04/28
01026 CADMIUM	CD,SUSP	UG/L			5	.600000	1.80000	1.34164	3.00000	.000000	79/04/17	80/09/29
				K	2	10.0000	.000000	.000000	10.0000	10.0000	75/07/03	75/08/31
				TOT	7	3.28571	22.2381	4.71573	10.0000	.000000	75/07/03	80/09/29
01027 CADMIUM	CD,TOT	UG/L			12	2.58333	31.1742	5.58339	20.0000	.000000	80/02/19	81/07/26
				K	2	20.0000	.000000	.000000	20.0000	20.0000	75/07/03	75/08/31
				U	3	.000000	.000000	.000000	.000000	.000000	79/04/17	79/09/06
				TOT	17	4.17647	57.9044	7.60950	20.0000	.000000	75/07/03	81/07/26
01028 CD MUD	DRY WGT	MG/KG-CD			8	.125000	.125000	.353553	1.00000	.000000	79/08/01	79/08/01
01029 CHROMIUM	SEDMG/KG	DRY WGT			9	6.44444	8.52780	2.92024	10.0000	2.00000	75/08/31	79/08/01
01030 CHROMIUM	CR,DISS	UG/L		U	1	.000000			.000000	.000000	75/07/03	75/07/03
01031 CHROMIUM	CR,SUSP	UG/L			1	.000000			.000000	.000000	75/07/03	75/07/03
01034 CHROMIUM	CR,TOT	UG/L			9	13.2222	238.694	15.4497	42.0000	.000000	80/04/14	81/07/26

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

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TAYLOR CREEK AT MOUTH NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01034 CHROMIUM	CR,TOT	UG/L	U	1	.000000			.000000	.000000	75/07/03	75/07/03
			TOT	10	11.9000	229.656	15.1544	42.0000	.000000	75/07/03	81/07/26
01035 COBALT	CO,DISS	UG/L		1	2.00000			2.00000	2.00000	75/07/03	75/07/03
			U	1	.000000			.000000	.000000	75/08/31	75/08/31
			TOT	2	1.00000	2.00000	1.41421	2.00000	.000000	75/07/03	75/08/31
01036 COBALT	CO,SUSP	UG/L	K	2	49.0000	2.00000	1.41421	50.0000	48.0000	75/07/03	75/08/31
01037 COBALT	CO,TOTAL	UG/L		9	30.4444	2264.78	47.5897	140.000	.000000	80/04/14	81/07/26
			K	2	100.000	.000000	.000000	100.000	100.000	75/07/03	75/08/31
			TOT	11	43.0909	2603.49	51.0244	140.000	.000000	75/07/03	81/07/26
01038 CO MUD	DRY WGT	MG/KG-CO		8	5.00000	.000000	.000000	5.00000	5.00000	79/08/01	79/08/01
01040 COPPER	CU,DISS	UG/L		8	3.37500	3.12500	1.76777	7.00000	2.00000	75/08/31	81/04/28
			K	2	2.00000	.000000	.000000	2.00000	2.00000	79/05/21	79/09/06
			U	2	.000000	.000000	.000000	.000000	.000000	75/07/03	79/04/17
			TOT	12	2.58333	3.71970	1.92865	7.00000	.000000	75/07/03	81/04/28
01041 COPPER	CU,SUSP	UG/L		7	12.0000	97.0000	9.84886	28.0000	1.00000	79/04/17	81/04/28
			K	2	9.00000	2.00000	1.41421	10.0000	8.00000	75/07/03	75/08/31
			TOT	9	11.3333	74.7500	8.64581	28.0000	1.00000	75/07/03	81/04/28
01042 COPPER	CU,TOT	UG/L		15	65.0667	10645.1	103.175	350.000	2.00000	79/04/17	81/07/26
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/07/03	75/08/31
			TOT	17	59.7647	9538.44	97.6649	350.000	2.00000	75/07/03	81/07/26
01043 COPPER	SEDMG/KG	DRY WGT		9	17.4444	14.0283	3.74544	25.0000	13.0000	75/08/31	79/08/01
01044 IRON	FE,SUSP	UG/L		16	26020.0	.507E+10	71233.2	290000	120.000	75/08/31	81/06/12
01045 IRON	FE,TOT	UG/L		29	24387.9	.382E+10	61846.4	290000	100.000	75/07/03	81/07/26
01046 IRON	FE,DISS	UG/L		24	52.5000	2784.78	52.7710	250.000	10.0000	75/09/01	81/06/12
			K	11	10.0000	.000000	.000000	10.0000	10.0000	75/07/03	80/09/29
			TOT	35	39.1428	2284.54	47.7968	250.000	10.0000	75/07/03	81/06/12
01049 LEAD	PB,DISS	UG/L		7	2.42857	5.61906	2.37045	7.00000	.000000	76/03/01	81/04/28
			U	8	.000000	.000000	.000000	.000000	.000000	75/07/03	79/09/06
			TOT	15	1.13333	3.98095	1.99523	7.00000	.000000	75/07/03	81/04/28
01050 LEAD	PB,SUSP	UG/L		10	15.5000	328.500	18.1246	48.0000	.000000	79/04/17	81/04/28
			K	2	100.000	.000000	.000000	100.000	100.000	75/07/03	75/08/31
			TOT	12	29.5833	1350.63	36.7509	100.000	.000000	75/07/03	81/04/28
01051 LEAD	PB,TOT	UG/L		18	39.1667	5154.38	71.7940	300.000	.000000	79/04/17	81/07/26
			K	2	200.000	.000000	.000000	200.000	200.000	75/07/03	75/08/31
			TOT	20	55.2500	7062.41	84.0381	300.000	.000000	75/07/03	81/07/26
01052 LEAD	SEDMG/KG	DRY WGT		9	33.5555	3916.28	62.5802	200.000	5.00000	75/08/31	79/08/01
01053 MN MUD	DRY WGT	MG/KG-MN		8	341.250	14212.5	119.216	540.000	180.000	79/08/01	79/08/01
01054 MANGNESE	MN,SUSP	UG/L		23	667.609	5165689	2272.82	11000.0	.000000	75/07/03	81/06/12
01055 MANGNESE	MN	UG/L		27	878.518	4913675	2216.68	11000.0	.000000	75/07/03	81/07/26
			K	2	10.0000	.000000	.000000	10.0000	10.0000	75/08/31	79/09/06
			TOT	29	818.621	4612862	2147.76	11000.0	.000000	75/07/03	81/07/26

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TAYLOR CREEK AT MOUTH NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276130-0269643

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01056 MANGNESE	MN,DISS	UG/L		24	45.8750	1548.81	39.3549	150.000	3.00000	75/09/01	81/06/12
			K	11	8.36364	13.2546	3.64068	10.0000	1.00000	75/07/03	80/07/30
			TOT	35	34.0857	1363.79	36.9295	150.000	1.00000	75/07/03	81/06/12
01060 MOLY	MO,DISS	UG/L		3	1.66667	1.33334	1.15470	3.00000	1.00000	75/07/03	80/09/29
			K	5	8.20000	16.2001	4.02493	10.0000	1.00000	79/04/17	81/04/28
			TOT	8	5.75000	21.0714	4.59036	10.0000	1.00000	75/07/03	81/04/28
01061 MOLY	MO,SUSP	UG/L		6	.333333	.666667	.816497	2.00000	.000000	75/07/03	80/09/29
01062 MOLY	MO,TOT	UG/L		15	180.333	448524	669.719	2600.00	.000000	75/07/03	81/07/26
			K	1	1.00000			1.00000	1.00000	79/04/17	79/04/17
			TOT	16	169.125	420632	648.561	2600.00	.000000	75/07/03	81/07/26
01065 NICKEL	NI,DISS	UG/L		8	2.50000	4.57143	2.13809	6.00000	.000000	75/07/03	81/04/28
			K	1	2.00000			2.00000	2.00000	75/08/31	75/08/31
			U	3	.000000	.000000	.000000	.000000	.000000	76/06/10	79/09/06
			TOT	12	1.83333	4.15152	2.03753	6.00000	.000000	75/07/03	81/04/28
01066 NICKEL	NI,SUSP	UG/L		7	12.5714	259.952	16.1230	48.0000	4.00000	79/04/17	81/04/28
			K	2	48.0000	2.00000	1.41421	49.0000	47.0000	75/07/03	75/08/31
			TOT	9	20.4444	439.278	20.9589	49.0000	4.00000	75/07/03	81/04/28
01067 NICKEL	NI,TOTAL	UG/L		15	51.1333	7550.12	86.8914	320.000	4.00000	79/04/17	81/07/26
			K	2	50.0000	.000000	.000000	50.0000	50.0000	75/07/03	75/08/31
			TOT	17	51.0000	6606.50	81.2804	320.000	4.00000	75/07/03	81/07/26
01068 NICKEL	SEDMG/KG	DRY WGT		1	12.0000			12.0000	12.0000	75/08/31	75/08/31
01085 VANADIUM	V,DISS	UG/L		5	1.64000	1.10300	1.05024	3.50000	1.00000	75/07/03	76/09/01
01090 ZINC	ZN,DISS	UG/L		6	19.5000	405.500	20.1370	50.0000	3.00000	75/07/03	81/04/28
			K	9	12.4444	80.2778	8.95979	20.0000	3.00000	75/08/31	80/08/26
			TOT	15	15.2667	203.495	14.2652	50.0000	3.00000	75/07/03	81/04/28
01091 ZINC	ZN,SUSP	UG/L		10	40.7000	5587.12	74.7471	240.000	.000000	75/07/03	81/04/28
01092 ZINC	ZN,TOT	UG/L		18	257.778	255160	505.133	2000.00	20.0000	75/08/31	81/07/26
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/07/03	79/09/06
			TOT	20	234.000	233657	483.381	2000.00	20.0000	75/07/03	81/07/26
01093 ZINC	SEDMG/KG	DRY WGT		8	53.8750	1384.98	37.2153	130.000	20.0000	79/08/01	79/08/01
01095 ANTIMONY	SB,DISS	UG/L	K	3	1.00000	.000000	.000000	1.00000	1.00000	76/03/01	76/09/01
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	6.00000			6.00000	6.00000	75/08/31	75/08/31
01105 ALUMINUM	AL,TOT	UG/L		19	26542.1	.430E+10	65642.7	270000	80.0000	75/07/03	81/07/26
01106 ALUMINUM	AL,DISS	UG/L		9	33.3333	3100.00	55.6777	180.000	.000000	75/07/03	81/04/28
			K	2	100.000	.000000	.000000	100.000	100.000	79/05/09	79/09/06
			TOT	11	45.4545	3207.27	56.6328	180.000	.000000	75/07/03	81/04/28
01107 ALUMINUM	AL,SUSP	UG/L		11	1748.18	.143E+08	3788.38	13000.0	80.0000	75/07/03	81/04/28
01108 AL MUD	DRY WGT	MG/KG-AL		8	3050.00	1185714	1088.90	4200.00	1200.00	79/08/01	79/08/01
01130 LITHIUM	LI,DISS	UG/L		1	30.0000			30.0000	30.0000	75/07/03	75/07/03
01131 LITHIUM	LI,SUSP	UG/L		1	.000000			.000000	.000000	75/07/03	75/07/03
01132 LITHIUM	LI,TOT	UG/L		1	30.0000			30.0000	30.0000	75/07/03	75/07/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09250510
40 18 48.0 107 47 57.0 2
TAYLOR CREEK AT MOUTH NEAR AXIAL, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 760220 14050002000
0000 CLASS 00 CSN-RSP 0276130-0269643

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01145 SELENIUM	SE,DISS	UG/L		10	2.00000	2.88889	1.69967	6.00000	1.00000	75/07/03	81/04/28
			K	2	1.00000	.000000	.000000	1.00000	1.00000	76/06/10	79/04/17
			TOT	12	1.83333	2.51515	1.58592	6.00000	1.00000	75/07/03	81/04/28
01146 SELENIUM	SE,SUSP	UG/L		9	.222222	.194444	.440958	1.00000	.000000	75/07/03	81/04/28
01147 SELENIUM	SE,TOT	UG/L		13	2.38461	3.42308	1.85016	6.00000	.000000	75/07/03	81/06/12
			K	1	1.00000			1.00000	1.00000	79/09/06	79/09/06
			TOT	14	2.28571	3.29671	1.81568	6.00000	.000000	75/07/03	81/06/12
01148 SELENIUM	SEDMG/KG	DRY WGT		8	.000000	.000000	.000000	.000000	.000000	79/08/01	79/08/01
01170 FE MUD	DRY WGT	MG/KG-FE		9	6677.78	6864448	2620.01	10000.0	2400.00	75/08/31	79/08/01
01330 ODOR	ATMOSPH	SEVERITY		12	.583333	.265152	.514929	1.00000	.000000	75/07/03	77/03/23
01345 FLOATING	DEBRIS	SEVERITY		4	1.00000	.000000	.000000	1.00000	1.00000	76/08/09	76/11/05
70301 DISS SOL	SUM	MG/L		34	773.088	61373.1	247.736	1340.00	167.000	75/07/03	81/06/12
70302 DISS SOL	TONS/DAY			34	1.02147	4.53887	2.13046	8.30001	.010000	75/07/03	81/06/12
70303 DISS SOL	TONS PER	ACRE-FT		34	1.05117	.113226	.336491	1.82000	.230000	75/07/03	81/06/12
70331 SUSP SED	PARTSIZE	%<.062MM		14	87.4819	302.610	17.3957	99.9998	46.0000	75/07/03	81/07/26
70332 SUSP SED	PARTSIZE	%<.125MM		1	97.0000			97.0000	97.0000	79/05/21	79/05/21
70333 SUSP SED	PARTSIZE	%<.250MM		1	100.0000			100.0000	100.0000	79/05/21	79/05/21
70337 SUSP SED	PARTSIZE	%<.002MM		1	56.0000			56.0000	56.0000	79/05/21	79/05/21
70338 SUSP SED	PARTSIZE	%<.004MM		1	63.0000			63.0000	63.0000	79/05/21	79/05/21
70340 SUSP SED	PARTSIZE	%<.016MM		1	84.0000			84.0000	84.0000	79/05/21	79/05/21
71886 TOTAL P	AS PO4	MG/L		4	1.43750	1.94869	1.39596	3.40000	.210000	80/04/14	80/06/05
71887 TOTAL N	AS NO3	MG/L		1	1.60000			1.60000	1.60000	75/08/31	75/08/31
71890 MERCURY	HG,DISS	UG/L		4	.000000	.000000	.000000	.000000	.000000	80/02/19	81/04/28
			K	8	.350000	.042857	.207019	.500000	.100000	75/07/03	79/09/06
			TOT	12	.233333	.056970	.238683	.500000	.000000	75/07/03	81/04/28
71895 MERCURY	HG,SUSP	UG/L		9	.100000	.010000	.100000	.300000	.000000	75/07/03	81/04/28
71900 MERCURY	HG,TOTAL	UG/L		9	.444445	1.00028	1.00014	3.10000	.000000	80/02/19	81/06/12
			K	5	.260000	.048000	.219090	.500000	.100000	75/07/03	79/09/06
			TOT	14	.378571	.638737	.799210	3.10000	.000000	75/07/03	81/06/12
71921 MERCURY	SEDMG/KG	DRY WGT		9	.026667	.000125	.011180	.050000	.020000	75/08/31	79/08/01
80154 SUSP SED	CONC	MG/L		52	1228.83	.163E+08	4040.77	25050.0	4.00000	75/07/03	81/07/26
80155 SUSP SED	DISCHARG	TONS/DAY		51	4.77784	535.187	23.1341	164.000	.000000	75/07/03	81/07/26
			K	1	.010000			.010000	.010000	79/09/06	79/09/06
			TOT	52	4.68615	525.130	22.9157	164.000	.000000	75/07/03	81/07/26
82068 POTAS-40	K-40,DIS	PC/LITER		5	6.56000	3.29308	1.81469	8.20000	4.00000	81/02/24	81/06/12

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09249750
40 26 14.0 107 38 50.0 2
WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264446-0269619

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER	TEMP	CENT		59	9.36440	64.8003	8.04986	26.0000	.000000	75/06/26	80/09/03
00028 ANALYZE	AGENCY	CODE		24	80018.7-	.569E+04	.000000	80020.0	80010.0	78/07/17	80/09/03
00041 WEATHER	WMO CODE	4501		18	5.38889	375.310	19.3729	83.0000	.000000	75/06/26	77/11/18
00060 STREAM	FLOW	CFS		5	44.0799	827.929	28.7738	81.9999	1.40000	57/10/25	76/01/27
00061 STREAM	FLOW,	INST-CFS		74	192.712	116425	341.211	1350.00	5.80000	75/06/26	80/09/03
			J	1	50.0000			50.0000	50.0000	77/11/18	77/11/18
00076 TURB	TRBIDMTR	HACH FTU	TOT	75	190.809	115123	339.298	1350.00	5.80000	75/06/26	80/09/03
00095 CNDUCTVY	AT 25C	MICROMHO		26	20.8000	556.545	23.5912	110.000	1.00000	75/06/26	77/10/12
00300 DO		MG/L		61	421.458	18358.7	135.494	860.000	128.000	57/10/25	80/09/03
00310 BOD	5 DAY	MG/L		52	9.59995	2.40073	1.54943	13.2000	6.69999	75/07/25	80/09/03
00400 PH		SU		1	.899999			.899999	.899999	75/11/18	75/11/18
00405 CO2		MG/L		62	8.08221	.123239	.351054	8.70000	7.10000	57/10/25	80/09/03
00410 T ALK	CACO3	MG/L		50	3.54000	11.0343	3.32179	14.0000	.400000	57/10/25	79/08/22
00440 HCO3 ION	HCO3	MG/L		61	157.065	1944.78	44.0997	270.000	67.0000	57/10/25	80/09/03
00445 CO3 ION	CO3	MG/L		50	187.860	2899.27	53.8448	330.000	82.0000	57/10/25	79/08/22
00572 BIOMASS	PERPHYTN	G/SQ M		48	.562500	4.03856	2.00962	10.0000	.000000	75/06/26	79/08/22
00573 BIOMASS	PERPHYTN	DW G/M2		6	7.45834	72.1101	8.49177	21.4000	.080000	75/10/09	80/09/03
00600 TOTAL N	N	MG/L		6	9.69499	113.613	10.6590	24.7000	.080000	75/10/09	80/09/03
00605 ORG N	N	MG/L		59	.772030	.512706	.716035	4.90000	.140000	75/06/26	80/09/03
00608 NH3+NH4-	N DISS	MG/L		58	.653100	.458947	.677456	4.60000	.070000	75/06/26	80/09/03
00610 NH3+NH4-	N TOTAL	MG/L	K	1	.010000			.010000	.010000	75/07/25	75/07/25
				49	.043673	.001895	.043527	.200000	.010000	75/06/26	80/09/03
			K	9	.010000	.582E-10	.000008	.010000	.010000	75/07/25	79/08/22
			TOT	58	.038448	.001747	.041793	.200000	.010000	75/06/26	80/09/03
00623 KJELDL N	DISS	MG/L		1	.080000			.080000	.080000	75/09/04	75/09/04
00624 KJELDL N	SUSP	MG/L		1	.080000			.080000	.080000	75/09/04	75/09/04
00625 TOT KJEL	N	MG/L		59	.678471	.451795	.672157	4.60000	.130000	75/06/26	80/09/03
00630 NO2&NO3	N-TOTAL	MG/L		56	.096607	.010496	.102448	.540000	.000000	75/06/26	80/09/03
			K	3	.100000-	.186E-08	.000000	.100000	.100000	75/09/30	79/07/25
			TOT	59	.096779	.009953	.099766	.540000	.000000	75/06/26	80/09/03
00631 NO2&NO3	N-DISS	MG/L		1	.010000			.010000	.010000	75/09/04	75/09/04
00650 T PO4	PO4	MG/L		3	2.34333	9.00764	3.00127	5.80000	.400000	79/04/20	79/06/04
00665 PHOS-TOT		MG/L P		57	.107368	.072916	.270030	1.90000	.000000	75/06/26	80/09/03
			K	2	.010000-	.145E-10	.000000	.010000	.010000	76/01/27	76/07/26
			TOT	59	.104067	.070718	.265928	1.90000	.000000	75/06/26	80/09/03
00666 PHOS-DIS		MG/L P		1	.020000			.020000	.020000	75/09/04	75/09/04
00680 T ORG C	C	MG/L		32	10.0593	189.324	13.7595	72.0000	2.40000	75/09/30	80/09/03
00681 D ORG C	C	MG/L		35	5.62857	5.43916	2.33220	12.0000	2.60000	75/09/04	80/09/03
00689 S ORG C	C	MG/L		1	.500000			.500000	.500000	75/09/04	75/09/04
00900 TOT HARD	CACO3	MG/L		60	198.150	3802.22	61.6621	340.000	74.0000	57/10/25	80/09/03
00902 NC HARD	CACO3	MG/L		59	41.3898	497.587	22.3067	120.000	7.00000	57/10/25	80/09/03

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00915 CALCIUM	CA,DISS	MG/L		60	43.6333	121.051	11.0023	67.0000	20.0000	57/10/25	80/09/03
00925 MGNSIUM	MG,DISS	MG/L		60	21.6083	81.4116	9.02284	53.0000	5.90000	57/10/25	80/09/03
00930 SODIUM	NA,DISS	MG/L		58	18.1448	118.182	10.8712	78.0000	3.40000	57/10/25	80/09/03
00931 SODIUM	ADSBTION	RATIO		58	.534479	.057739	.240290	1.80000	.200000	57/10/25	80/09/03
00932 PERCENT	SODIUM	%		57	16.0175	24.0537	4.90446	33.0000	9.00000	75/06/26	80/09/03
00933 NA+K		MG/L		11	17.2909	64.0433	8.00271	29.0000	5.20000	58/05/08	80/02/11
00935 PTSSIUM	K,DISS	MG/L		58	1.89310	.681023	.825241	5.10000	.700000	75/06/26	80/09/03
00940 CHLORIDE	TOTAL	MG/L		60	3.97833	7.37087	2.71494	16.0000	.500000	58/05/08	80/09/03
00945 SULFATE	SO4-TOT	MG/L		60	71.7666	1467.78	38.3117	220.000	14.0000	57/10/25	80/09/03
00950 FLUORIDE	F,DISS	MG/L		58	.170689	.010178	.100888	.800000	.100000	75/06/26	80/09/03
00955 SILICA	DISOLVED	MG/L		59	11.3712	5.32954	2.30858	15.0000	2.60000	58/05/08	80/09/03
01000 ARSENIC	AS,DISS	UG/L		9	1.22222	.194447	.440961	2.00000	1.00000	76/06/10	80/09/03
			K	4	1.00000	.000000	.000000	1.00000	1.00000	75/09/30	79/06/04
			TOT	13	1.15385	.141027	.375535	2.00000	1.00000	75/09/30	80/09/03
01001 ARSENIC	AS,SUSP	UG/L		7	1.28571	.571429	.755929	2.00000	.000000	75/09/30	80/09/03
			K	5	1.00000	.000000	.000000	1.00000	1.00000	75/12/04	79/09/25
			TOT	12	1.16667	.333335	.577352	2.00000	.000000	75/09/30	80/09/03
01002 ARSENIC	AS,TOT	UG/L		12	1.75000	.386364	.621582	3.00000	1.00000	75/09/30	80/09/03
			K	1	1.00000			1.00000	1.00000	75/12/04	75/12/04
			TOT	13	1.69231	.397439	.630428	3.00000	1.00000	75/09/30	80/09/03
01003 ARSENIC	SEDMG/KG	DRY WGT		1	6.00000			6.00000	6.00000	75/09/04	75/09/04
01010 BERYLIUM	BE,DISS	UG/L	K	13	7.92308	15.5769	3.94676	10.0000	1.00000	75/09/30	80/09/03
01011 BERYLIUM	BE,SUSP	UG/L		11	.909091	9.09091	3.01511	10.0000	.000000	75/09/30	79/09/25
01012 BERYLIUM	BE,TOT	UG/L		4	5.00000	33.3333	5.77350	10.0000	.000000	75/09/30	80/09/03
			K	9	10.0000	.000000	.000000	10.0000	10.0000	75/12/04	79/09/25
			TOT	13	8.46154	14.1026	3.75534	10.0000	.000000	75/09/30	80/09/03
01020 BORON	B,DISS	UG/L		55	76.5454	50023.0	223.658	1700.00	30.0000	75/06/26	80/09/03
			K	3	20.0000	.000000	.000000	20.0000	20.0000	75/07/25	79/07/25
			TOT	58	73.6207	47549.8	218.059	1700.00	20.0000	75/06/26	80/09/03
01025 CADMIUM	CD,DISS	UG/L		1	2.00000			2.00000	2.00000	77/03/25	77/03/25
			K	9	1.77778	.194447	.440961	2.00000	1.00000	75/09/30	80/09/03
			U	4	.000000	.000000	.000000	.000000	.000000	75/09/04	79/06/04
			TOT	14	1.28571	.835167	.913875	2.00000	.000000	75/09/04	80/09/03
01026 CADMIUM	CD,SUSP	UG/L		6	.166667	.166667	.408248	1.00000	.000000	75/09/30	79/09/25
			K	6	9.16667	.566748	.752827	10.0000	8.00000	75/09/04	77/03/25
			TOT	12	4.66667	22.4243	4.73543	10.0000	.000000	75/09/04	79/09/25
01027 CADMIUM	CD,TOT	UG/L		3	.666667	1.33333	1.15470	2.00000	.000000	78/09/25	80/09/03
			K	7	17.4286	46.2863	6.80340	20.0000	2.00000	75/09/04	78/05/30
			U	4	.000000	.000000	.000000	.000000	.000000	75/09/30	79/09/25
			TOT	14	8.85714	100.747	10.0373	20.0000	.000000	75/09/04	80/09/03
01029 CHROMIUM	SEDMG/KG	DRY WGT		1	17.0000			17.0000	17.0000	75/09/04	75/09/04

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

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40 26 14.0 107 38 50.0 2
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08081 COLORADO MOFFAT

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112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264446-0269619

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01030 CHROMIUM	CR,DISS	UG/L		4	6.25000	89.5833	9.46485	20.0000	.000000	75/09/30	80/09/03
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/12/04	79/09/25
			U	7	.000000	.000000	.000000	.000000	.000000	76/03/03	79/06/04
			TOT	13	5.00000	75.0000	8.66025	20.0000	.000000	75/09/30	80/09/03
01031 CHROMIUM	CR,SUSP	UG/L		13	5.76923	99.3590	9.96790	30.0000	.000000	75/09/30	80/09/03
01034 CHROMIUM	CR,TOT	UG/L		5	18.0000	120.000	10.9545	30.0000	.000000	75/09/30	80/09/03
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/12/04	76/08/30
			U	6	.000000	.000000	.000000	.000000	.000000	76/03/03	79/09/25
			TOT	13	10.0000	133.333	11.5470	30.0000	.000000	75/09/30	80/09/03
01035 COBALT	CO,DISS	UG/L	U	1	.000000			.000000	.000000	75/09/04	75/09/04
01036 COBALT	CO,SUSP	UG/L	K	1	50.0000			50.0000	50.0000	75/09/04	75/09/04
01037 COBALT	CO,TOTAL	UG/L	K	1	100.000			100.000	100.000	75/09/04	75/09/04
01040 COPPER	CU,DISS	UG/L		10	4.50000	4.05556	2.01384	8.00000	1.00000	75/09/30	80/09/03
			K	1	2.00000			2.00000	2.00000	75/09/04	75/09/04
			U	3	.000000	.000000	.000000	.000000	.000000	76/08/30	79/06/04
			TOT	14	3.35714	6.55495	2.56026	8.00000	.000000	75/09/04	80/09/03
01041 COPPER	CU,SUSP	UG/L		9	7.55556	25.0278	5.00278	15.0000	.000000	75/09/30	80/09/03
			K	5	6.20000	11.2000	3.34664	10.0000	2.00000	75/09/04	77/03/25
			TOT	14	7.07143	19.3022	4.39343	15.0000	.000000	75/09/04	80/09/03
01042 COPPER	CU,TOT	UG/L		5	14.0000	14.5000	3.80789	18.0000	8.00000	76/06/10	80/09/03
			K	8	17.7500	40.5000	6.36396	20.0000	2.00000	75/09/04	79/06/04
			U	1	.000000			.000000	.000000	75/09/30	75/09/30
			TOT	14	15.1429	48.5934	6.97090	20.0000	.000000	75/09/04	80/09/03
01043 COPPER	SEDMG/KG	DRY WGT		1	5.00000			5.00000	5.00000	75/09/04	75/09/04
01044 IRON	FE,SUSP	UG/L		3	236.666	29433.2	171.561	419.999	79.9999	75/09/04	75/12/04
01045 IRON	FE,TOT	UG/L		8	1511.25	3693012	1921.72	5600.00	120.000	75/09/04	77/03/25
01046 IRON	FE,DISS	UG/L		56	61.6071	2624.64	51.2313	250.000	10.0000	75/06/26	80/09/03
			K	2	5.00000	50.0000	7.07107	10.0000	.000000	76/04/08	79/04/20
			TOT	58	59.6552	2641.98	51.4002	250.000	.000000	75/06/26	80/09/03
01049 LEAD	PB,DISS	UG/L		9	3.22222	6.69445	2.58736	8.00000	.000000	75/12/04	80/09/03
			K	1	2.00000			2.00000	2.00000	75/09/30	75/09/30
			U	4	.000000	.000000	.000000	.000000	.000000	75/09/04	79/09/25
			TOT	14	2.21428	6.33517	2.51698	8.00000	.000000	75/09/04	80/09/03
01050 LEAD	PB,SUSP	UG/L		8	8.87500	60.9821	7.80911	24.0000	.000000	75/09/30	80/09/03
			K	6	97.5000	1.90000	1.37840	100.000	96.0000	75/09/04	77/03/25
			TOT	14	46.8571	2105.06	45.8809	100.000	.000000	75/09/04	80/09/03
01051 LEAD	PB,TOT	UG/L		7	12.1429	36.8096	6.06709	24.0000	4.00000	76/06/10	80/09/03
			K	6	200.000	.000000	.000000	200.000	200.000	75/09/04	77/03/25
			U	1	.000000			.000000	.000000	75/09/30	75/09/30
			TOT	14	91.7857	9485.26	97.3923	200.000	.000000	75/09/04	80/09/03
01052 LEAD	SEDMG/KG	DRY WGT		1	50.0000			50.0000	50.0000	75/09/04	75/09/04

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09249750
40 26 14.0 107 38 50.0 2
WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264446-0269619

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01054 MANGNESE	MN,SUSP	UG/L		14	60.8571	4865.67	69.7544	220.000	.000000	75/09/04	80/09/03
01055 MANGNESE	MN	UG/L		12	88.3333	4742.43	68.8653	230.000	20.0000	75/09/04	80/09/03
			K	2	10.0000	.000000	.000000	10.0000	10.0000	78/09/25	79/09/25
			TOT	14	77.1428	4821.98	69.4405	230.000	10.0000	75/09/04	80/09/03
01056 MANGNESE	MN,DISS	UG/L		8	22.1250	232.696	15.2544	50.0000	8.00000	75/12/04	80/09/03
			K	6	10.0000	.000000	.000000	10.0000	10.0000	75/09/04	79/06/04
			TOT	14	16.9286	164.072	12.8091	50.0000	8.00000	75/09/04	80/09/03
01060 MOLY	MO,DISS	UG/L		6	1.16667	.166668	.408250	2.00000	1.00000	75/09/30	77/03/25
			K	1	1.00000			1.00000	1.00000	76/03/03	76/03/03
			TOT	7	1.14286	.142859	.377966	2.00000	1.00000	75/09/30	77/03/25
01061 MOLY	MO,SUSP	UG/L		7	.857143	2.14286	1.46385	4.00000	.000000	75/09/30	77/03/25
01062 MOLY	MO,TOT	UG/L		7	1.71428	2.23810	1.49603	5.00000	1.00000	75/09/30	77/03/25
01065 NICKEL	NI,DISS	UG/L		9	4.11111	9.36112	3.05959	11.0000	1.00000	75/09/04	80/09/03
			K	2	2.00000	.000000	.000000	2.00000	2.00000	76/03/03	76/12/08
			U	3	.000000	.000000	.000000	.000000	.000000	76/06/10	78/09/25
			TOT	14	2.92857	8.84066	2.97333	11.0000	.000000	75/09/04	80/09/03
01066 NICKEL	NI,SUSP	UG/L		8	16.3750	231.696	15.2216	49.0000	.000000	76/06/10	80/09/03
			K	6	46.6667	4.26953	2.06628	49.0000	43.0000	75/09/04	77/03/25
			TOT	14	29.3571	368.402	19.1938	49.0000	.000000	75/09/04	80/09/03
01067 NICKEL	NI,TOTAL	UG/L		7	21.4286	228.286	15.1091	50.0000	3.00000	76/06/10	80/09/03
			K	6	50.0000	.000000	.000000	50.0000	50.0000	75/09/04	77/03/25
			U	1	.000000			.000000	.000000	78/09/25	78/09/25
			TOT	14	32.1428	393.825	19.8450	50.0000	.000000	75/09/04	80/09/03
01068 NICKEL	SEDMG/KG	DRY WGT		1	8.00000			8.00000	8.00000	75/09/04	75/09/04
01085 VANADIUM	V,DISS	UG/L		14	.871428	.251429	.501427	2.00000	.100000	75/09/04	80/09/03
01090 ZINC	ZN,DISS	UG/L		4	25.0000	33.3333	5.77350	30.0000	20.0000	76/06/10	79/09/25
			K	4	11.5000	96.3333	9.81495	20.0000	3.00000	75/09/30	80/09/03
			U	6	.000000	.000000	.000000	.000000	.000000	75/09/04	79/06/04
			TOT	14	10.4286	145.802	12.0749	30.0000	.000000	75/09/04	80/09/03
01091 ZINC	ZN,SUSP	UG/L		12	21.6667	796.970	28.2307	100.000	.000000	75/09/04	79/09/25
01092 ZINC	ZN,TOT	UG/L		8	51.2500	1241.07	35.2288	130.000	20.0000	76/03/03	80/09/03
			K	5	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	78/09/25
			U	1	.000000			.000000	.000000	75/12/04	75/12/04
			TOT	14	36.4286	1009.34	31.7701	130.000	.000000	75/09/04	80/09/03
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	5.00000			5.00000	5.00000	75/09/04	75/09/04
01105 ALUMINUM	AL,TOT	UG/L		12	1440.83	2897808	1702.29	4800.00	90.0000	75/09/30	80/09/03
			K	1	100.000			100.000	100.000	79/09/25	79/09/25
			TOT	13	1337.69	2794620	1671.71	4800.00	90.0000	75/09/30	80/09/03
01106 ALUMINUM	AL,DISS	UG/L		10	26.5000	533.611	23.1000	80.0000	.000000	75/09/30	80/09/03
			K	3	100.000	.000000	.000000	100.000	100.000	75/12/04	79/09/25
			TOT	13	43.4615	1439.10	37.9355	100.000	.000000	75/09/30	80/09/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09249750
40 26 14.0 107 38 50.0 2
WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264446-0269619

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01107 ALUMINUM	AL,SUSP	UG/L		12	1045.00	1873698	1368.83	4400.00	80.0000	75/09/30	80/09/03
01130 LITHIUM	LI,DISS	UG/L		4	20.0000	.000000	.000000	20.0000	20.0000	75/12/04	77/03/25
			K	3	10.0000	.000000	.000000	10.0000	10.0000	75/09/30	76/06/10
			TOT	7	15.7143	28.5715	5.34523	20.0000	10.0000	75/09/30	77/03/25
01131 LITHIUM	LI,SUSP	UG/L		7	2.85714	57.1428	7.55929	20.0000	.000000	75/09/30	77/03/25
01132 LITHIUM	LI,TOT	UG/L		4	22.5000	25.0000	5.00000	30.0000	20.0000	75/12/04	77/03/25
			K	3	10.0000	.000000	.000000	10.0000	10.0000	75/09/30	76/12/08
			TOT	7	17.1428	57.1431	7.55930	30.0000	10.0000	75/09/30	77/03/25
01145 SELENIUM	SE,DISS	UG/L		5	.800000	.200000	.447214	1.00000	.000000	76/12/08	80/09/03
			K	9	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	79/09/25
			TOT	14	.928571	.071429	.267261	1.00000	.000000	75/09/04	80/09/03
01146 SELENIUM	SE,SUSP	UG/L		14	.357143	.247253	.497245	1.00000	.000000	75/09/04	80/09/03
01147 SELENIUM	SE,TOT	UG/L		9	1.00000	.250000	.500000	2.00000	.000000	75/12/04	80/09/03
			K	5	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	79/09/25
			TOT	14	1.00000	.153846	.392232	2.00000	.000000	75/09/04	80/09/03
01170 FE MUD	DRY WGT	MG/KG-FE		1	6200.00			6200.00	6200.00	75/09/04	75/09/04
01330 ODOR	ATMOSPH	SEVERITY		25	.040000	.040000	.200000	1.00000	.000000	75/06/26	78/01/19
01345 FLOATING	DEBRIS	SEVERITY		10	15.4000	890.266	29.8373	73.0000	1.00000	76/11/24	78/01/19
60050 ALGAE	TOTAL	/ML		24	791.291	1005018	1002.51	4900.00	90.9999	75/06/26	77/10/12
70300 RESIDUE	DISS-180	C MG/L		2	210.000	648.062	25.4571	228.000	192.000	58/05/08	58/08/09
70301 DISS SOL	SUM	MG/L		55	260.782	7119.03	84.3744	438.000	96.0000	75/06/26	80/09/03
70302 DISS SOL	TONS/DAY			58	89.7963	13305.2	115.348	529.000	.730000	58/05/08	80/09/03
70303 DISS SOL	TONS PER	ACRE-FT		58	.354136	.012910	.113623	.600000	.130000	58/05/08	80/09/03
70331 SUSP SED	PARTSIZE	%<.062MM		5	73.4599	269.123	16.4050	96.0000	60.9999	75/06/26	79/05/18
70950 BIOMASS-	CHLRATIO	PERIUNIT		4	456.000	139545	373.557	851.000	.000000	79/04/20	80/09/03
70957 CHLRPHYL	A-PERIPH	CHFLUG/L		5	2.64400	18.4882	4.29979	10.2000	.000000	78/10/25	80/09/03
70958 CHLRPHYL	B-PERIPH	CHFLUG/L		5	.302200	.328779	.573393	1.32000	.000000	78/10/25	80/09/03
71845 AMMONIA	TOT-NH4	MG/L		15	.029333	.000464	.021536	.070000	.000000	79/04/20	80/09/03
71846 AMMONIA	DISS-NH4	MG/L		1	.000000			.000000	.000000	75/07/25	75/07/25
71850 NITRATE	TOT-NO3	MG/L		2	.350000	.045000	.212132	.500000	.200000	58/05/08	58/08/09
71886 TOTAL P	AS PO4	MG/L		15	.632667	2.19450	1.48138	5.80000	.000000	79/04/20	80/09/03
71887 TOTAL N	AS NO3	MG/L		59	3.41711	10.2056	3.19461	22.0000	.620001	75/06/26	80/09/03
71890 MERCURY	HG,DISS	UG/L		3	.533333	.853333	.923761	1.60000	.000000	79/06/04	80/09/03
			K	11	.390909	.034909	.186840	.500000	.100000	75/09/04	79/09/25
			TOT	14	.421428	.161813	.402260	1.60000	.000000	75/09/04	80/09/03
71895 MERCURY	HG,SUSP	UG/L		13	.084615	.038077	.195133	.700000	.000000	75/09/04	80/09/03
71900 MERCURY	HG,TOTAL	UG/L		4	.650000	1.21667	1.10303	2.30000	.000000	78/05/30	80/09/03
			K	10	.420000	.028444	.168655	.500000	.100000	75/09/04	79/09/25
			TOT	14	.485714	.312088	.558648	2.30000	.000000	75/09/04	80/09/03
71921 MERCURY	SEDMG/KG	DRY WGT		1	.040000			.040000	.040000	75/09/04	75/09/04
72015 TOP DPTH	OF SMPLE	FT		2	.000000	.000000	.000000	.000000	.000000	75/07/25	77/02/24

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09249750
40 26 14.0 107 38 50.0 2
WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264446-0269619

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
80154 SUSP SED	CONC	MG/L		46	185.304	204760	452.504	2710.00	.000000	75/06/26	80/09/03
80155 SUSP SED	DISCHARG	TONS/DAY		40	380.070	2604519	1613.85	9880.00	.000000	75/06/26	80/09/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09247600
40 29 04.0 107 36 23.0 2
YAMPA RIVER BELOW CRAIG, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 751216 14050001000
0000 CLASS 00 CSN-RSP 0270139-0269602

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		60	9.25833	60.0211	7.74733	24.0000	.000000	75/06/26	80/09/03
00028	ANALYZE	AGENCY	CODE		24	80019.5	.000000	.000000	80020.0	80010.0	78/07/17	80/09/03
00041	WEATHER	WMO CODE	4501		18	5.22222	377.006	19.4167	83.0000	.000000	75/06/26	77/11/18
00061	STREAM	FLOW,	INST-CFS		67	1715.15	6973777	2640.79	9990.00	10.7000	75/06/26	80/09/03
				J	5	1355.00	7277700	2697.72	6180.00	79.9999	75/09/04	79/06/04
00076	TURB	TRBIDMTR	HACH FTU	TOT	72	1690.13	6901175	2627.01	9990.00	10.7000	75/06/26	80/09/03
00095	CNDUCTVY	AT 25C	MICROMHO		25	14.0199	447.865	21.1628	90.0000	1.00000	75/06/26	77/10/12
00300	DO		MG/L		60	333.399	19343.9	139.082	670.000	78.0000	75/06/26	80/09/03
00310	BOD	5 DAY	MG/L		53	9.88485	3.28080	1.81130	16.0000	6.89999	75/07/25	80/09/03
00400	PH		SU		1	1.80000			1.80000	1.80000	75/11/18	75/11/18
00405	CO2		MG/L		60	7.99912	.301919	.549472	9.00000	7.00000	75/06/26	80/09/03
00410	T ALK	CACO3	MG/L		49	3.88775	24.4561	4.94531	22.0000	.100000	75/06/26	79/08/22
00440	HCO3 ION	HCO3	MG/L		59	98.5931	1460.61	38.2179	180.000	22.0000	75/06/26	80/09/03
00445	CO3 ION	CO3	MG/L		49	116.367	2096.47	45.7873	220.000	27.0000	75/06/26	79/08/22
00572	BIOMASS	PERPHYTN	G/SQ M		49	1.02041	9.68707	3.11241	16.0000	.000000	75/06/26	79/08/22
00573	BIOMASS	PERPHYTN	DW G/M2		3	7.85333	150.704	12.2762	22.0000	.000000	75/10/09	79/06/04
00600	TOTAL N	N	MG/L		3	16.1466	669.716	25.8789	46.0000	.080000	75/10/09	79/06/04
00605	ORG N	N	MG/L		60	.820829	.244186	.494152	2.70000	.220000	75/06/26	80/09/03
00610	NH3+NH4-	N TOTAL	MG/L		59	.531860	.070594	.265695	1.30000	.090000	75/06/26	80/09/03
					52	.117500	.013760	.117304	.440000	.000000	75/06/26	80/09/03
				K	7	.010000	.776E-10	.000009	.010000	.010000	75/08/27	79/08/22
00623	KJELDL N	DISS	MG/L	TOT	59	.104745	.013329	.115450	.440000	.000000	75/06/26	80/09/03
00624	KJELDL N	SUSP	MG/L		1	.190000			.190000	.190000	75/09/04	75/09/04
00625	TOT KJEL	N	MG/L		1	.020000			.020000	.020000	75/09/04	75/09/04
00630	NO2&NO3	N-TOTAL	MG/L		59	.628471	.077005	.277498	1.40000	.210000	75/06/26	80/09/03
					55	.210545	.087224	.295336	1.40000	.000000	75/06/26	80/09/03
				K	5	.100000	-.279E-08	.000000	.100000	.100000	75/07/25	79/07/24
00631	NO2&NO3	N-DISS	MG/L	TOT	60	.201333	.080781	.284220	1.40000	.000000	75/06/26	80/09/03
00650	T PO4	PO4	MG/L		1	.010000			.010000	.010000	75/09/04	75/09/04
00665	PHOS-TOT		MG/L P		3	.530000	.083200	.288444	.770001	.210000	79/04/23	79/06/04
00666	PHOS-DIS		MG/L P		60	.106666	.004470	.066859	.270000	.010000	75/06/26	80/09/03
00680	T ORG C	C	MG/L		1	.010000			.010000	.010000	75/09/04	75/09/04
00681	D ORG C	C	MG/L		34	6.51176	9.38838	3.06405	14.0000	2.80000	75/09/30	80/09/03
00689	S ORG C	C	MG/L		34	5.67058	3.11001	1.76352	9.70000	2.60000	75/09/04	80/09/03
00900	TOT HARD	CACO3	MG/L		1	.500000			.500000	.500000	75/09/04	75/09/04
00902	NC HARD	CACO3	MG/L		58	121.241	2278.88	47.7376	220.000	25.0000	75/06/26	80/09/03
00915	CALCIUM	CA,DISS	MG/L		58	22.9827	330.404	18.1770	100.000	1.00000	75/06/26	80/09/03
00925	MGNSIUM	MG,DISS	MG/L		59	29.7864	119.206	10.9181	48.0000	6.70000	75/06/26	80/09/03
00930	SODIUM	NA,DISS	MG/L		58	11.2327	26.5105	5.14883	25.0000	1.90000	75/06/26	80/09/03
00931	SODIUM	ADSBTION	RATIO		58	23.7189	170.756	13.0674	62.0000	2.60000	75/06/26	80/09/03
					58	.687926	.134767	.367106	2.00000	.200000	75/06/26	80/09/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09247600
40 29 04.0 107 36 23.0 2
YAMPA RIVER BELOW CRAIG, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 751216 14050001000
0000 CLASS 00 CSN-RSP 0270139-0269602

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00932	PERCENT SODIUM	%			58	27.9138	36.9929	6.08218	42.0000	13.0000	75/06/26	80/09/03
00933	NA+K	MG/L			9	26.1222	219.835	14.8268	43.0000	5.10000	79/05/17	80/02/11
00935	PTSSIUM K,DISS	MG/L			59	2.28474	.644758	.802969	4.10000	.700000	75/06/26	80/09/03
00940	CHLORIDE TOTAL	MG/L			59	9.19319	24.0857	4.90771	23.0000	.900000	75/06/26	80/09/03
00945	SULFATE SO4-TOT	MG/L			59	60.0034	1275.39	35.7125	180.000	6.50000	75/06/26	80/09/03
00950	FLUORIDE F,DISS	MG/L			59	.210169	.004722	.068719	.400000	.100000	75/06/26	80/09/03
00955	SILICA DISOLVED	MG/L			57	7.54909	8.78877	2.96459	13.0000	.500000	75/06/26	80/09/03
01000	ARSENIC AS,DISS	UG/L			10	1.10000	.100001	.316230	2.00000	1.00000	75/09/30	80/09/03
				K	3	1.00000	.000000	.000000	1.00000	1.00000	75/12/04	79/06/04
				TOT	13	1.07692	.076925	.277353	2.00000	1.00000	75/09/30	80/09/03
01001	ARSENIC AS,SUSP	UG/L			6	1.00000	.400000	.632456	2.00000	.000000	76/03/03	80/09/03
				K	4	1.00000	.000000	.000000	1.00000	1.00000	75/09/30	79/09/25
				TOT	10	1.00000	.222222	.471404	2.00000	.000000	75/09/30	80/09/03
01002	ARSENIC AS,TOT	UG/L			12	1.58333	.446973	.668560	3.00000	1.00000	75/09/30	80/09/03
				K	1	1.00000			1.00000	1.00000	75/12/04	75/12/04
				TOT	13	1.53846	.435902	.660228	3.00000	1.00000	75/09/30	80/09/03
01003	ARSENIC SEDMG/KG	DRY WGT			1	2.00000			2.00000	2.00000	75/09/04	75/09/04
01010	BERYLIUM BE,DISS	UG/L			3	9.99999	.000000	.000000	10.0000	9.99999	75/12/04	76/06/10
				K	10	7.30000	18.9000	4.34742	10.0000	1.00000	75/09/30	80/09/03
				TOT	13	7.92308	15.5769	3.94676	10.0000	1.00000	75/09/30	80/09/03
01011	BERYLIUM BE,SUSP	UG/L			10	3.00000	90.0000	9.48683	30.0000	.000000	75/09/30	79/09/25
01012	BERYLIUM BE,TOT	UG/L			3	13.3333	533.333	23.0940	40.0000	.000000	76/06/10	80/09/03
				K	9	10.0000	.000000	.000000	10.0000	10.0000	75/09/30	79/09/25
				TOT	12	10.8333	99.2424	9.96205	40.0000	.000000	75/09/30	80/09/03
01020	BORON B,DISS	UG/L			55	65.8182	721.077	26.8529	190.000	20.0000	75/06/26	80/09/03
				K	4	20.0000	.000000	.000000	20.0000	20.0000	75/07/25	79/07/24
				TOT	59	62.7118	806.313	28.3957	190.000	20.0000	75/06/26	80/09/03
01025	CADMIUM CD,DISS	UG/L		K	8	1.75000	.214286	.462910	2.00000	1.00000	76/03/03	80/09/03
				U	6	.000000	.000000	.000000	.000000	.000000	75/09/04	79/06/04
				TOT	14	1.00000	.923077	.960769	2.00000	.000000	75/09/04	80/09/03
01026	CADMIUM CD,SUSP	UG/L			8	2.50000	16.5714	4.07080	9.00000	.000000	75/09/30	79/09/25
				K	3	9.33333	.333496	.577491	10.0000	9.00000	75/09/04	77/03/25
				TOT	11	4.36364	21.8545	4.67489	10.0000	.000000	75/09/04	79/09/25
01027	CADMIUM CD,TOT	UG/L			3	1.00000	3.00000	1.73205	3.00000	.000000	78/05/18	80/09/03
				K	6	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	77/03/25
				U	5	.000000	.000000	.000000	.000000	.000000	75/09/30	79/09/25
				TOT	14	8.78571	102.181	10.1085	20.0000	.000000	75/09/04	80/09/03
01029	CHROMIUM SEDMG/KG	DRY WGT			1	41.0000			41.0000	41.0000	75/09/04	75/09/04
01030	CHROMIUM CR,DISS	UG/L			2	.000000	.000000	.000000	.000000	.000000	80/05/13	80/09/03
				K	3	20.0000	.000000	.000000	20.0000	20.0000	75/09/30	79/09/25
				U	8	.000000	.000000	.000000	.000000	.000000	76/03/03	79/06/04

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08081 COLORADO MOFFAT

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112WRD 751216 14050001000
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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01030 CHROMIUM	CR,DISS	UG/L	TOT	13	4.61538	76.9231	8.77058	20.0000	.000000	75/09/30	80/09/03
01031 CHROMIUM	CR,SUSP	UG/L		12	4.16667	44.6970	6.68558	20.0000	.000000	75/09/30	80/09/03
01034 CHROMIUM	CR,TOT	UG/L		4	11.2500	72.9167	8.53913	20.0000	.000000	78/05/18	80/09/03
			K	5	20.0000	.000000	.000000	20.0000	20.0000	75/09/30	79/09/25
			U	4	.000000	.000000	.000000	.000000	.000000	76/08/30	79/06/04
			TOT	13	11.1538	92.3077	9.60769	20.0000	.000000	75/09/30	80/09/03
01035 COBALT	CO,DISS	UG/L	U	1	.000000			.000000	.000000	75/09/04	75/09/04
01036 COBALT	CO,SUSP	UG/L	K	1	50.0000			50.0000	50.0000	75/09/04	75/09/04
01037 COBALT	CO,TOTAL	UG/L	K	1	100.000			100.000	100.000	75/09/04	75/09/04
01040 COPPER	CU,DISS	UG/L		8	4.37500	15.4107	3.92565	13.0000	1.00000	75/09/30	80/09/03
			K	5	2.00000	.000000	.000000	2.00000	2.00000	75/09/04	79/06/04
			U	1	.000000			.000000	.000000	76/06/10	76/06/10
			TOT	14	3.21428	10.4890	3.23867	13.0000	.000000	75/09/04	80/09/03
01041 COPPER	CU,SUSP	UG/L		11	7.72727	57.6182	7.59067	27.0000	.000000	75/09/30	80/09/03
			K	2	8.00000	2.00000	1.41421	9.00000	7.00000	75/09/04	76/12/08
			TOT	13	7.76923	48.1923	6.94207	27.0000	.000000	75/09/04	80/09/03
01042 COPPER	CU,TOT	UG/L		8	11.1250	94.1250	9.70180	31.0000	2.00000	76/06/10	80/09/03
			K	5	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	76/12/08
			U	1	.000000			.000000	.000000	75/09/30	75/09/30
			TOT	14	13.5000	84.4231	9.18820	31.0000	.000000	75/09/04	80/09/03
01043 COPPER	SEDMG/KG	DRY WGT		1	5.00000			5.00000	5.00000	75/09/04	75/09/04
01044 IRON	FE,SUSP	UG/L		2	74.9999	2449.99	49.4974	110.000	40.0000	75/09/04	75/09/30
01045 IRON	FE,TOT	UG/L		8	1135.00	2863456	1692.17	5000.00	70.0000	75/09/04	77/03/25
01046 IRON	FE,DISS	UG/L		56	94.2857	4981.30	70.5783	370.000	20.0000	75/06/26	80/09/03
			K	2	10.0000	.000000	.000000	10.0000	10.0000	75/12/04	77/08/09
			TOT	58	91.3793	5047.19	71.0436	370.000	10.0000	75/06/26	80/09/03
01049 LEAD	PB,DISS	UG/L		7	3.14286	16.8095	4.09994	12.0000	.000000	75/09/04	80/09/03
			K	3	2.00000	.000000	.000000	2.00000	2.00000	75/09/30	76/12/08
			U	4	.000000	.000000	.000000	.000000	.000000	76/06/10	79/09/25
			TOT	14	2.00000	9.69231	3.11325	12.0000	.000000	75/09/04	80/09/03
01050 LEAD	PB,SUSP	UG/L		8	4.87500	15.5536	3.94380	11.0000	.000000	75/09/30	80/09/03
			K	5	97.8000	.708008	.841432	99.0000	97.0000	75/09/04	77/03/25
			TOT	13	40.6154	2223.42	47.1532	99.0000	.000000	75/09/04	80/09/03
01051 LEAD	PB,TOT	UG/L		6	8.50000	40.3000	6.34823	20.0000	2.00000	78/05/18	80/09/03
			K	6	200.000	.000000	.000000	200.000	200.000	75/09/04	77/03/25
			U	2	.000000	.000000	.000000	.000000	.000000	75/09/30	76/06/10
			TOT	14	89.3571	9911.48	99.5564	200.000	.000000	75/09/04	80/09/03
01052 LEAD	SEDMG/KG	DRY WGT		1	50.0000			50.0000	50.0000	75/09/04	75/09/04
01054 MANGNESE	MN,SUSP	UG/L		13	53.0769	1306.41	36.1443	120.000	.000000	75/09/04	80/09/03
01055 MANGNESE	MN	UG/L		14	71.4285	1705.50	41.2976	170.000	20.0000	75/09/04	80/09/03
01056 MANGNESE	MN,DISS	UG/L		9	28.7777	290.947	17.0572	60.0000	9.00000	75/12/04	80/09/03

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01056 MANGNESE	MN,DISS	UG/L	K	5	10.0000	.000000	.000000	10.0000	10.0000	75/09/04	79/06/04
			TOT	14	22.0714	266.226	16.3164	60.0000	9.00000	75/09/04	80/09/03
01060 MOLY	MO,DISS	UG/L		3	.999999	.000001	.001196	1.00000	.999999	75/09/30	76/08/30
			K	4	1.00000	.000000	.000000	1.00000	1.00000	76/03/03	77/03/25
			TOT	7	1.000000	.476E-06	.000691	1.00000	.999999	75/09/30	77/03/25
01061 MOLY	MO,SUSP	UG/L		5	1.80000	8.70000	2.94958	7.00000	.000000	75/09/30	76/12/08
01062 MOLY	MO,TOT	UG/L		7	2.00000	5.00000	2.23607	7.00000	1.00000	75/09/30	77/03/25
01065 NICKEL	NI,DISS	UG/L		6	6.33333	30.6667	5.53775	16.0000	2.00000	75/09/04	80/09/03
			K	4	2.00000	.000000	.000000	2.00000	2.00000	75/09/30	78/05/18
			U	4	.000000	.000000	.000000	.000000	.000000	75/12/04	79/06/04
			TOT	14	3.28571	19.9121	4.46230	16.0000	.000000	75/09/04	80/09/03
01066 NICKEL	NI,SUSP	UG/L		7	3.00000	9.33333	3.05505	7.00000	.000000	76/06/10	80/09/03
			K	6	46.6667	12.2695	3.50279	49.0000	40.0000	75/09/04	77/03/25
			TOT	13	23.1538	523.142	22.8723	49.0000	.000000	75/09/04	80/09/03
01067 NICKEL	NI,TOTAL	UG/L		6	7.16667	26.9667	5.19295	16.0000	2.00000	76/06/10	80/09/03
			K	7	50.0000	.005859	.076547	50.0000	49.9999	75/09/04	77/03/25
			U	1	.000000			.000000	.000000	78/09/14	78/09/14
			TOT	14	28.0714	531.610	23.0567	50.0000	.000000	75/09/04	80/09/03
01068 NICKEL	SEDMG/KG	DRY WGT		1	5.00000			5.00000	5.00000	75/09/04	75/09/04
01085 VANADIUM	V,DISS	UG/L		14	.614286	.407473	.638336	2.10000	.000000	75/09/04	80/09/03
01090 ZINC	ZN,DISS	UG/L		3	14.3333	96.3335	9.81496	20.0000	3.00000	77/03/25	80/09/03
			K	4	15.7500	72.2500	8.50000	20.0000	3.00000	75/09/04	80/05/13
			U	7	.000000	.000000	.000000	.000000	.000000	75/12/04	79/06/04
			TOT	14	7.57143	93.4945	9.66926	20.0000	.000000	75/09/04	80/09/03
01091 ZINC	ZN,SUSP	UG/L		12	22.5000	438.636	20.9436	60.0000	.000000	75/09/04	80/09/03
01092 ZINC	ZN,TOT	UG/L		10	34.0000	226.667	15.0555	60.0000	20.0000	76/03/03	80/09/03
			K	3	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	78/09/14
			U	1	.000000			.000000	.000000	75/12/04	75/12/04
			TOT	14	28.5714	259.341	16.1041	60.0000	.000000	75/09/04	80/09/03
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	3.00000			3.00000	3.00000	75/09/04	75/09/04
01105 ALUMINUM	AL,TOT	UG/L		12	963.333	2023386	1422.46	4800.00	80.0000	75/09/30	80/09/03
01106 ALUMINUM	AL,DISS	UG/L		13	40.0000	600.003	24.4950	80.0000	9.99999	75/09/30	80/09/03
01107 ALUMINUM	AL,SUSP	UG/L		10	1063.00	2251221	1500.41	4700.00	30.0000	75/09/30	80/09/03
01130 LITHIUM	LI,DISS	UG/L		6	23.3333	26.6667	5.16399	30.0000	20.0000	75/09/30	77/03/25
			K	1	10.0000			10.0000	10.0000	76/06/10	76/06/10
			TOT	7	21.4286	47.6195	6.90069	30.0000	10.0000	75/09/30	77/03/25
01131 LITHIUM	LI,SUSP	UG/L		6	3.33333	26.6667	5.16398	10.0000	.000000	75/09/30	77/03/25
01132 LITHIUM	LI,TOT	UG/L		5	32.0000	20.0010	4.47224	40.0000	30.0000	75/12/04	77/03/25
			K	2	10.0000	.000000	.000000	10.0000	10.0000	75/09/30	76/06/10
			TOT	7	25.7143	128.572	11.3389	40.0000	10.0000	75/09/30	77/03/25
01145 SELENIUM	SE,DISS	UG/L		5	1.00000	.500000	.707107	2.00000	.000000	76/03/03	80/09/03

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01145 SELENIUM	SE,DISS	UG/L	K	9	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	79/09/25
			TOT	14	1.00000	.153846	.392232	2.00000	.000000	75/09/04	80/09/03
01146 SELENIUM	SE,SUSP	UG/L		13	.000000	.000000	.000000	.000000	.000000	75/09/04	80/09/03
01147 SELENIUM	SE,TOT	UG/L		6	1.000000	.400001	.632456	2.00000	.000000	75/12/04	80/09/03
			K	8	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	79/09/25
			TOT	14	1.000000	.153846	.392232	2.00000	.000000	75/09/04	80/09/03
01170 FE MUD	DRY WGT	MG/KG-FE		1	5700.00			5700.00	5700.00	75/09/04	75/09/04
01330 ODOR	ATMOSPH	SEVERITY		26	.000000	.000000	.000000	.000000	.000000	75/06/26	78/01/19
01345 FLOATING	DEBRIS	SEVERITY		10	15.4000	890.266	29.8373	73.0000	1.00000	76/11/24	78/01/19
60050 ALGAE	TOTAL	/ML		24	4272.91	.332E+08	5765.87	29000.0	350.000	75/06/26	77/10/12
70301 DISS SOL	SUM	MG/L		57	201.772	7692.85	87.7089	421.000	44.0000	75/06/26	80/09/03
70302 DISS SOL	TONS/DAY			56	517.048	630170	793.833	4230.00	10.7000	75/06/26	80/09/03
70303 DISS SOL	TONS PER	ACRE-FT		57	.274386	.014107	.118773	.570000	.060000	75/06/26	80/09/03
70331 SUSP SED	PARTSIZE	%<.062MM		2	74.0000	200.000	14.1421	84.0000	64.0000	79/04/23	79/05/17
70332 SUSP SED	PARTSIZE	%<.125MM		1	92.0000			92.0000	92.0000	79/04/23	79/04/23
70333 SUSP SED	PARTSIZE	%<.250MM		1	97.0000			97.0000	97.0000	79/04/23	79/04/23
70334 SUSP SED	PARTSIZE	%<.500MM		1	100.0000			100.0000	100.0000	79/04/23	79/04/23
70337 SUSP SED	PARTSIZE	%<.002MM		1	40.0000			40.0000	40.0000	79/04/23	79/04/23
70338 SUSP SED	PARTSIZE	%<.004MM		1	49.0000			49.0000	49.0000	79/04/23	79/04/23
70340 SUSP SED	PARTSIZE	%<.016MM		1	64.0000			64.0000	64.0000	79/04/23	79/04/23
70950 BIOMASS-	CHLRATIO	PERIUNIT		1	.800E+09			.800E+09	.800E+09	79/06/04	79/06/04
70957 CHLRPHYL	A-PERIPH	CHFLUG/L		2	.875000	1.53125	1.23744	1.75000	.000000	78/10/24	79/06/04
70958 CHLRPHYL	B-PERIPH	CHFLUG/L		2	.114000	.025992	.161221	.228000	.000000	78/10/24	79/06/04
71845 AMMONIA	TOT-NH4	MG/L		15	.138000	.026189	.161829	.530000	.000000	79/04/23	80/09/03
71886 TOTAL P	AS PO4	MG/L		15	.371333	.040370	.200922	.770001	.090000	79/04/23	80/09/03
71887 TOTAL N	AS NO3	MG/L		60	3.63449	4.79176	2.18901	12.0000	.970001	75/06/26	80/09/03
71890 MERCURY	HG,DISS	UG/L		3	.533333	.853333	.923761	1.60000	.000000	79/06/04	80/09/03
			K	11	.390909	.034909	.186840	.500000	.100000	75/09/04	79/09/25
			TOT	14	.421428	.161813	.402260	1.60000	.000000	75/09/04	80/09/03
71895 MERCURY	HG,SUSP	UG/L		12	.041667	.013561	.116450	.400000	.000000	75/09/04	80/09/03
71900 MERCURY	HG,TOTAL	UG/L		3	.700000	1.27000	1.12694	2.00000	.000000	79/06/04	80/09/03
			K	11	.390909	.034909	.186840	.500000	.100000	75/09/04	79/09/25
			TOT	14	.457143	.239561	.489449	2.00000	.000000	75/09/04	80/09/03
71921 MERCURY	SEDMG/KG	DRY WGT		1	.070000			.070000	.070000	75/09/04	75/09/04
80154 SUSP SED	CONC	MG/L		37	58.5133	8357.96	91.4219	418.000	3.00000	75/06/26	80/09/03
80155 SUSP SED	DISCHARG	TONS/DAY		30	906.565	4301527	2074.01	8530.00	.570000	75/12/04	80/09/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09246550
40 29 50.0 107 30 34.0 2
YAMPA RIVER BELOW ELKHEAD CREEK NEAR CRAIG, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 751216 14050001000
0000 CLASS 00 CSN-RSP 0270138-0269585

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER	TEMP	CENT			62	8.29838	53.1760	7.29218	22.0000	.000000	75/06/26	80/09/03
00028 ANALYZE	AGENCY	CODE			25	80019.5	2730.67	52.2558	80020.0	80010.0	78/07/19	80/09/03
00041 WEATHER	WMO CODE	4501			32	3.12500	162.694	12.7551	73.0000	.000000	75/06/26	77/12/19
00060 STREAM	FLOW	CFS			12	1074.33	2413629	1553.59	5139.99	104.000	75/10/20	76/09/09
				J	13	350.460	439699	663.098	2130.00	38.0000	76/10/13	78/01/19
00061 STREAM	FLOW,	INST-CFS		TOT	25	697.917	1462332	1209.27	5139.99	38.0000	75/10/20	78/01/19
					11	1646.00	6813811	2610.33	7460.00	123.000	75/06/26	79/05/17
				J	27	1668.85	7533382	2744.70	9900.00	70.0000	75/08/27	80/09/03
00076 TURB	TRBIDMTR	HACH FTU		TOT	38	1662.24	7135407	2671.22	9900.00	70.0000	75/06/26	80/09/03
00095 CNDUCTVY	AT 25C	MICROMHO			29	9.63103	94.7292	9.73289	43.0000	.000000	75/06/26	77/10/14
00300 DO		MG/L			62	328.967	15999.5	126.489	650.000	80.0000	75/06/26	80/09/03
00310 BOD	5 DAY	MG/L			55	8.92177	2.96477	1.72185	13.0000	5.90000	75/07/25	80/09/03
00400 PH		SU			14	2.65928	1.78599	1.33641	5.69999	1.25000	75/09/29	77/10/14
00405 CO2		MG/L			60	7.81411	.193632	.440037	8.70000	6.90000	75/06/26	80/09/03
00410 T ALK	CACO3	MG/L			48	4.29166	16.0097	4.00121	15.0000	.200000	75/06/26	79/08/22
00440 HCO3 ION	HCO3	MG/L			60	97.5333	1089.39	33.0059	160.000	26.0000	75/06/26	80/09/03
00445 CO3 ION	CO3	MG/L			50	117.400	1589.91	39.8736	190.000	32.0000	75/06/26	79/08/22
00572 BIOMASS	PERPHYTN	G/SQ M			50	.180000	1.62000	1.27279	9.00000	.000000	75/06/26	79/08/22
00573 BIOMASS	PERPHYTN	DW G/M2			4	11.9050	67.4907	8.21527	24.0000	5.91000	75/10/09	79/09/25
00600 TOTAL N	N	MG/L			4	18.8975	431.958	20.7836	50.0000	6.54001	75/10/09	79/09/25
00605 ORG N	N	MG/L			61	.860487	.559052	.747698	5.20000	.200000	75/06/26	80/09/03
00610 NH3+NH4-	N TOTAL	MG/L			60	.593829	.375136	.612484	4.80000	.090000	75/06/26	80/09/03
					53	.069622	.004923	.070164	.290000	.010000	75/06/26	80/09/03
				K	7	.010000	.776E-10	.000009	.010000	.010000	75/08/27	79/08/22
00623 KJELDL N	DISS	MG/L		TOT	60	.062666	.004711	.068640	.290000	.010000	75/06/26	80/09/03
00624 KJELDL N	SUSP	MG/L			1	.160000			.160000	.160000	75/09/04	75/09/04
00625 TOT KJEL	N	MG/L			1	.090000			.090000	.090000	75/09/04	75/09/04
00630 NO2&NO3	N-TOTAL	MG/L			61	.647701	.361659	.601381	4.80000	.200000	75/06/26	80/09/03
					55	.233818	.099231	.315010	1.50000	.000000	75/06/26	80/09/03
				K	6	.100000	-.223E-08	.000000	.100000	.100000	75/07/25	79/07/24
00631 NO2&NO3	N-DISS	MG/L		TOT	61	.220655	.090923	.301534	1.50000	.000000	75/06/26	80/09/03
00650 T PO4	PO4	MG/L			1	.010000			.010000	.010000	75/09/04	75/09/04
00665 PHOS-TOT		MG/L P			3	.476667	.080034	.282903	.640001	.150000	79/04/23	79/06/04
					60	.084166	.009587	.097916	.590000	.010000	75/06/26	80/09/03
				K	1	.010000			.010000	.010000	75/07/25	75/07/25
00666 PHOS-DIS		MG/L P		TOT	61	.082950	.009518	.097560	.590000	.010000	75/06/26	80/09/03
00680 T ORG C	C	MG/L			1	.010000			.010000	.010000	75/09/04	75/09/04
00681 D ORG C	C	MG/L			31	6.86774	16.9569	4.11788	18.0000	3.30000	75/09/29	80/09/03
00689 S ORG C	C	MG/L			35	5.43428	4.15821	2.03917	11.0000	2.90000	75/09/04	80/09/03
00900 TOT HARD	CACO3	MG/L			1	.400000			.400000	.400000	75/09/04	75/09/04
					60	120.683	1927.63	43.9048	220.000	30.0000	75/06/26	80/09/03

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08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 751216 14050001000
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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00902 NC HARD	CACO3	MG/L		60	22.9000	373.922	19.3371	100.000	.000000	75/06/26	80/09/03
00915 CALCIUM	CA,DISS	MG/L		60	30.0083	96.0571	9.80087	48.0000	8.10000	75/06/26	80/09/03
00925 MGNSIUM	MG,DISS	MG/L		60	11.0866	23.2507	4.82189	25.0000	2.00000	75/06/26	80/09/03
00930 SODIUM	NA,DISS	MG/L		60	21.0083	128.070	11.3168	66.0000	3.30000	75/06/26	80/09/03
00931 SODIUM	ADSBTION	RATIO		60	.793329	.099282	.315090	2.00000	.200000	75/06/26	80/09/03
00932 PERCENT	SODIUM	%		60	26.0000	26.9830	5.19452	41.0000	15.0000	75/06/26	80/09/03
00933 NA+K		MG/L		9	21.1222	125.665	11.2100	33.0000	4.90000	79/05/17	80/02/06
00935 PTSSIUM	K,DISS	MG/L		60	2.46166	1.44405	1.20169	9.30000	.800000	75/06/26	80/09/03
00940 CHLORIDE	TOTAL	MG/L		60	8.83496	22.0332	4.69395	22.0000	1.10000	75/06/26	80/09/03
00945 SULFATE	SO4-TOT	MG/L		60	54.0283	1099.24	33.1548	170.000	8.40000	75/06/26	80/09/03
00950 FLUORIDE	F,DISS	MG/L		60	.206666	.003684	.060692	.300000	.100000	75/06/26	80/09/03
00955 SILICA	DISOLVED	MG/L		59	8.25759	8.87914	2.97979	15.0000	.600000	75/06/26	80/09/03
01000 ARSENIC	AS,DISS	UG/L		9	1.55556	1.77778	1.33333	5.00000	1.00000	76/03/03	80/09/03
			K	6	1.00000	.000000	.000000	1.00000	1.00000	75/09/29	79/06/04
			TOT	15	1.33333	1.09524	1.04654	5.00000	1.00000	75/09/29	80/09/03
01001 ARSENIC	AS,SUSP	UG/L		7	.857143	.476191	.690066	2.00000	.000000	75/09/29	80/09/03
			K	7	1.00000	.000000	.000000	1.00000	1.00000	76/01/12	79/09/25
			TOT	14	.928571	.225275	.474631	2.00000	.000000	75/09/29	80/09/03
01002 ARSENIC	AS,TOT	UG/L		14	1.28571	.219783	.468810	2.00000	1.00000	75/09/29	80/09/03
			K	1	1.00000			1.00000	1.00000	76/01/12	76/01/12
			TOT	15	1.26667	.209526	.457740	2.00000	1.00000	75/09/29	80/09/03
01003 ARSENIC	SEDMG/KG	DRY WGT		1	3.00000			3.00000	3.00000	75/09/04	75/09/04
01010 BERYLIUM	BE,DISS	UG/L		1	10.0000			10.0000	10.0000	77/09/28	77/09/28
			K	14	8.07143	14.6868	3.83234	10.0000	1.00000	75/09/29	80/09/03
			TOT	15	8.20000	13.8857	3.72636	10.0000	1.00000	75/09/29	80/09/03
01011 BERYLIUM	BE,SUSP	UG/L		13	1.15385	8.97436	2.99572	10.0000	.000000	75/09/29	79/09/25
01012 BERYLIUM	BE,TOT	UG/L		4	3.75000	22.9167	4.78713	10.0000	.000000	76/06/03	80/09/03
			K	11	10.0000	.000000	.000000	10.0000	10.0000	75/09/29	79/09/25
			TOT	15	8.33333	13.0953	3.61874	10.0000	.000000	75/09/29	80/09/03
01020 BORON	B,DISS	UG/L		59	55.2542	455.572	21.3441	120.000	4.00000	75/06/26	80/09/03
			K	1	20.0000			20.0000	20.0000	79/06/04	79/06/04
			TOT	60	54.6667	468.564	21.6463	120.000	4.00000	75/06/26	80/09/03
01025 CADMIUM	CD,DISS	UG/L		1	3.00000			3.00000	3.00000	76/01/12	76/01/12
			K	8	1.75000	.214286	.462910	2.00000	1.00000	75/09/29	80/09/03
			U	7	.000000	.000000	.000000	.000000	.000000	75/09/04	79/06/04
			TOT	16	1.06250	1.12917	1.06262	3.00000	.000000	75/09/04	80/09/03
01026 CADMIUM	CD,SUSP	UG/L		5	2.60000	18.8000	4.33590	10.0000	.000000	76/06/03	79/06/04
			K	8	9.12500	.982143	.991031	10.0000	7.00000	75/09/04	77/06/07
			TOT	13	6.61538	17.7564	4.21384	10.0000	.000000	75/09/04	79/06/04
01027 CADMIUM	CD,TOT	UG/L		3	1.00000	3.00000	1.73205	3.00000	.000000	78/05/16	80/09/03
			K	9	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	77/09/28

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01027 CADMIUM	CD,TOT	UG/L	U	3	.000000	.000000	.000000	.000000	.000000	76/06/03	79/06/04
			TOT	15	12.2000	98.3143	9.91536	20.0000	.000000	75/09/04	80/09/03
01029 CHROMIUM	SEDMG/KG	DRY WGT		1	7.00000			7.00000	7.00000	75/09/04	75/09/04
01030 CHROMIUM	CR,DISS	UG/L		3	1.33333	5.33333	2.30940	4.00000	.000000	76/06/03	80/09/03
			K	2	20.0000	.000000	.000000	20.0000	20.0000	75/09/29	77/03/15
			U	10	.000000	.000000	.000000	.000000	.000000	76/01/12	79/09/25
			TOT	15	2.93333	49.0667	7.00476	20.0000	.000000	75/09/29	80/09/03
01031 CHROMIUM	CR,SUSP	UG/L		14	1.42857	13.1868	3.63137	10.0000	.000000	75/09/29	80/09/03
			K	1	6.00000			6.00000	6.00000	76/06/03	76/06/03
			TOT	15	1.73333	13.6381	3.69298	10.0000	.000000	75/09/29	80/09/03
01034 CHROMIUM	CR,TOT	UG/L		2	.000000	.000000	.000000	.000000	.000000	80/05/13	80/09/03
			K	4	20.0000	.000000	.000000	20.0000	20.0000	75/09/29	78/09/14
			U	9	.000000	.000000	.000000	.000000	.000000	76/01/12	79/09/25
			TOT	15	5.33333	83.8095	9.15475	20.0000	.000000	75/09/29	80/09/03
01035 COBALT	CO,DISS	UG/L	U	1	.000000			.000000	.000000	75/09/04	75/09/04
01036 COBALT	CO,SUSP	UG/L	K	1	50.0000			50.0000	50.0000	75/09/04	75/09/04
01037 COBALT	CO,TOTAL	UG/L	K	1	100.000			100.000	100.000	75/09/04	75/09/04
01040 COPPER	CU,DISS	UG/L		11	4.90909	27.4909	5.24318	20.0000	2.00000	75/09/29	80/09/03
			K	4	2.00000	.000000	.000000	2.00000	2.00000	75/09/04	79/06/04
			U	1	.000000			.000000	.000000	76/09/09	76/09/09
			TOT	16	3.87500	21.0500	4.58803	20.0000	.000000	75/09/04	80/09/03
01041 COPPER	CU,SUSP	UG/L		10	6.50000	35.1667	5.93015	19.0000	.000000	76/01/12	80/09/03
			K	6	7.00000	5.20000	2.28035	9.00000	3.00000	75/09/04	77/06/07
			TOT	16	6.68750	22.8958	4.78496	19.0000	.000000	75/09/04	80/09/03
01042 COPPER	CU,TOT	UG/L		8	10.6250	47.6964	6.90626	20.0000	2.00000	76/01/12	80/09/03
			K	8	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	77/09/28
			TOT	16	15.3125	45.6958	6.75987	20.0000	2.00000	75/09/04	80/09/03
01043 COPPER	SEDMG/KG	DRY WGT		1	5.00000			5.00000	5.00000	75/09/04	75/09/04
01044 IRON	FE,SUSP	UG/L		2	105.000	8449.97	91.9237	170.000	40.0000	75/09/04	75/09/29
01045 IRON	FE,TOT	UG/L		10	613.000	443290	665.800	2300.00	70.0000	75/09/04	77/09/28
01046 IRON	FE,DISS	UG/L		59	96.9491	6456.07	80.3497	510.000	20.0000	75/06/26	80/09/03
			K	1	10.0000			10.0000	10.0000	79/10/25	79/10/25
			TOT	60	95.4999	6472.64	80.4527	510.000	10.0000	75/06/26	80/09/03
01049 LEAD	PB,DISS	UG/L		8	4.25000	52.7857	7.26538	22.0000	.000000	75/09/04	80/09/03
			K	2	2.00000	.000000	.000000	2.00000	2.00000	76/12/16	77/06/07
			U	6	.000000	.000000	.000000	.000000	.000000	75/09/29	79/09/25
			TOT	16	2.37500	28.7833	5.36501	22.0000	.000000	75/09/04	80/09/03
01050 LEAD	PB,SUSP	UG/L		9	15.1111	1019.11	31.9235	100.000	.000000	75/09/29	80/09/03
			K	7	98.2857	1.25000	1.11803	99.9998	97.0000	75/09/04	77/06/07
			TOT	16	51.5000	2360.00	48.5798	100.000	.000000	75/09/04	80/09/03
01051 LEAD	PB,TOT	UG/L		7	8.28571	71.9048	8.47967	27.0000	3.00000	76/06/03	80/09/03

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01051 LEAD	PB,TOT	UG/L	K	8	200.000	.000000	.000000	200.000	200.000	75/09/04	77/09/28
			U	1	.000000			.000000	.000000	75/09/29	75/09/29
			TOT	16	103.625	9940.11	99.7001	200.000	.000000	75/09/04	80/09/03
01052 LEAD	SEDMG/KG	DRY WGT		1	50.0000			50.0000	50.0000	75/09/04	75/09/04
01054 MANGNESE	MN,SUSP	UG/L		16	52.5000	5500.00	74.1620	320.000	10.0000	75/09/04	80/09/03
01055 MANGNESE	MN	UG/L		16	71.8750	6469.58	80.4337	360.000	20.0000	75/09/04	80/09/03
01056 MANGNESE	MN,DISS	UG/L		10	27.0000	156.667	12.5167	50.0000	10.0000	75/09/04	80/09/03
			K	6	10.0000	.000000	.000000	10.0000	10.0000	75/09/29	79/06/04
			TOT	16	20.6250	166.250	12.8938	50.0000	10.0000	75/09/04	80/09/03
01060 MOLY	MO,DISS	UG/L		3	1.33333	.333335	.577352	2.00000	1.00000	75/09/29	76/09/09
			K	6	1.00000	.000000	.000000	1.00000	1.00000	76/01/12	77/09/28
			TOT	9	1.11111	.111112	.333335	2.00000	1.00000	75/09/29	77/09/28
01061 MOLY	MO,SUSP	UG/L		9	.666667	.250000	.500000	1.00000	.000000	75/09/29	77/09/28
01062 MOLY	MO,TOT	UG/L		6	1.33333	.266668	.516399	2.00000	1.00000	75/09/29	77/09/28
			K	3	1.00000	.000000	.000000	1.00000	1.00000	76/06/03	77/06/07
			TOT	9	1.22222	.194447	.440961	2.00000	1.00000	75/09/29	77/09/28
01065 NICKEL	NI,DISS	UG/L		10	3.40000	6.04445	2.45855	10.0000	2.00000	75/09/04	80/09/03
			K	4	2.00000	.000000	.000000	2.00000	2.00000	76/03/03	78/09/14
			U	2	.000000	.000000	.000000	.000000	.000000	76/06/03	79/06/04
			TOT	16	2.62500	5.05000	2.24722	10.0000	.000000	75/09/04	80/09/03
01066 NICKEL	NI,SUSP	UG/L		8	11.2500	279.071	16.7054	49.0000	.000000	76/06/03	80/09/03
			K	8	47.7500	1.93080	1.38953	49.9999	46.0000	75/09/04	77/06/07
			TOT	16	29.5000	486.400	22.0545	49.9999	.000000	75/09/04	80/09/03
01067 NICKEL	NI,TOTAL	UG/L		5	11.4000	122.800	11.0815	30.0000	2.00000	78/05/16	80/09/03
			K	10	45.2000	230.401	15.1790	50.0000	2.00000	75/09/04	78/09/14
			U	1	.000000			.000000	.000000	76/06/03	76/06/03
			TOT	16	31.8125	496.829	22.2897	50.0000	.000000	75/09/04	80/09/03
01068 NICKEL	SEDMG/KG	DRY WGT		1	5.00000			5.00000	5.00000	75/09/04	75/09/04
01085 VANADIUM	V,DISS	UG/L		14	.778571	.566429	.752615	2.60000	.000000	75/09/04	80/09/03
01090 ZINC	ZN,DISS	UG/L		3	21.6667	308.334	17.5594	40.0000	5.00000	76/01/12	80/05/13
			K	9	18.1111	32.1116	5.66671	20.0000	3.00000	75/09/04	80/09/03
			U	4	.000000	.000000	.000000	.000000	.000000	76/03/03	79/06/04
			TOT	16	14.2500	132.333	11.5036	40.0000	.000000	75/09/04	80/09/03
01091 ZINC	ZN,SUSP	UG/L		15	16.0000	225.714	15.0238	50.0000	.000000	75/09/04	80/05/13
01092 ZINC	ZN,TOT	UG/L		11	36.3636	385.456	19.6330	80.0000	20.0000	76/01/12	80/09/03
			K	4	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	78/09/14
			U	1	.000000			.000000	.000000	76/09/09	76/09/09
			TOT	16	30.0000	373.333	19.3218	80.0000	.000000	75/09/04	80/09/03
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	2.00000			2.00000	2.00000	75/09/04	75/09/04
01105 ALUMINUM	AL,TOT	UG/L		13	775.385	1174758	1083.66	3800.00	70.0000	76/01/12	80/09/03
			K	1	100.000			100.000	100.000	75/09/29	75/09/29

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09246550
40 29 50.0 107 30 34.0 2
YAMPA RIVER BELOW ELKHEAD CREEK NEAR CRAIG, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 751216 14050001000
0000 CLASS 00 CSN-RSP 0270138-0269585

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01105 ALUMINUM	AL,TOT	UG/L	TOT	14	727.143	1116974	1056.87	3800.00	70.0000	75/09/29	80/09/03
01106 ALUMINUM	AL,DISS	UG/L		11	24.5454	147.274	12.1356	50.0000	10.0000	75/09/29	80/09/03
			K	4	100.000	.000000	.000000	100.000	100.000	76/01/12	79/09/25
01107 ALUMINUM	AL,SUSP	UG/L	TOT	15	44.6667	1298.10	36.0291	100.000	10.0000	75/09/29	80/09/03
01130 LITHIUM	LI,DISS	UG/L		14	719.286	1125252	1060.78	3800.00	50.0000	75/09/29	80/09/03
				7	24.2857	28.5723	5.34530	30.0000	20.0000	75/09/29	77/09/28
			K	2	10.0000	.000000	.000000	10.0000	10.0000	76/06/03	77/06/07
01131 LITHIUM	LI,SUSP	UG/L	TOT	9	21.1111	61.1117	7.81740	30.0000	10.0000	75/09/29	77/09/28
01132 LITHIUM	LI,TOT	UG/L		9	3.33333	25.0000	5.00000	10.0000	.000000	75/09/29	77/09/28
				7	28.5714	14.2865	3.77974	30.0000	20.0000	75/09/29	77/09/28
			K	2	10.0000	.000000	.000000	10.0000	10.0000	76/06/03	77/06/07
01145 SELENIUM	SE,DISS	UG/L	TOT	9	24.4444	77.7783	8.81920	30.0000	10.0000	75/09/29	77/09/28
				7	1.00000	.333333	.577350	2.00000	.000000	75/09/29	80/09/03
			K	9	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	79/09/25
01146 SELENIUM	SE,SUSP	UG/L	TOT	16	1.00000	.133333	.365148	2.00000	.000000	75/09/04	80/09/03
01147 SELENIUM	SE,TOT	UG/L		15	.133333	.123809	.351866	1.00000	.000000	75/09/04	80/09/03
				9	1.00000	.250000	.500000	2.00000	.000000	75/09/29	80/09/03
			K	7	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	79/09/25
01170 FE MUD	DRY WGT	MG/KG-FE	TOT	16	1.00000	.133333	.365148	2.00000	.000000	75/09/04	80/09/03
01330 ODOR	ATMOSPH	SEVERITY		1	6800.00			6800.00	6800.00	75/09/04	75/09/04
01345 FLOATING	DEBRIS	SEVERITY		32	.000000	.000000	.000000	.000000	.000000	75/06/26	78/01/19
60050 ALGAE	TOTAL	/ML		1	2.00000			2.00000	2.00000	78/01/19	78/01/19
70301 DISS SOL	SUM	MG/L		19	2998.95	.178E+08	4230.74	18000.0	389.999	75/07/25	77/10/14
70302 DISS SOL	TONS/DAY			59	194.932	6217.31	78.8499	407.000	48.0000	75/06/26	80/09/03
				34	473.527	388653	623.421	2480.00	.120000	75/06/26	79/08/22
			J	10	620.469	1407056	1186.19	3950.00	46.7000	79/09/25	80/09/03
70303 DISS SOL	TONS PER	ACRE-FT	TOT	44	506.923	596649	772.430	3950.00	.120000	75/06/26	80/09/03
				58	.263793	.011543	.107439	.550000	.070000	75/06/26	80/09/03
			J	1	.340000			.340000	.340000	79/09/25	79/09/25
70950 BIOMASS-	CHLRATIO	PERIUNIT	TOT	59	.265084	.011443	.106970	.550000	.070000	75/06/26	80/09/03
70957 CHLRPHYL	A-PERIPH	CHFLUG/L		2	133.500	35644.5	188.798	267.000	.000000	79/08/22	79/09/25
70958 CHLRPHYL	B-PERIPH	CHFLUG/L		3	1.72667	1.78924	1.33762	2.63000	.190000	78/10/03	79/09/25
71845 AMMONIA	TOT-NH4	MG/L		3	.456667	.158434	.398038	.730001	.000000	78/10/03	79/09/25
71886 TOTAL P	AS PO4	MG/L		15	.061333	.006170	.078546	.270000	.000000	79/04/23	80/09/03
71887 TOTAL N	AS NO3	MG/L		15	.248666	.046898	.216560	.640001	.030000	79/04/23	80/09/03
71890 MERCURY	HG,DISS	UG/L		61	3.80967	10.9185	3.30432	23.0000	.890001	75/06/26	80/09/03
				4	.750000	1.07667	1.03763	2.20000	.000000	76/12/16	80/09/03
			K	12	.400000	.032727	.180907	.500000	.100000	75/09/04	79/09/25
71895 MERCURY	HG,SUSP	UG/L	TOT	16	.487500	.263833	.513647	2.20000	.000000	75/09/04	80/09/03
71900 MERCURY	HG,TOTAL	UG/L		16	.293750	.557958	.746966	2.30000	.000000	75/09/04	80/09/03
				4	1.87500	4.86917	2.20662	4.50000	.000000	76/12/16	80/09/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09246550
40 29 50.0 107 30 34.0 2
YAMPA RIVER BELOW ELKHEAD CREEK NEAR CRAIG, CO.
08081 COLORADO MOFFAT

/TYPA/AMBNT/STREAM

112WRD 751216 14050001000
0000 CLASS 00 CSN-RSP 0270138-0269585

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
71900 MERCURY	HG,TOTAL	UG/L	K	12	.400000	.032727	.180907	.500000	.100000	75/09/04	79/09/25
			TOT	16	.768750	1.43296	1.19706	4.50000	.000000	75/09/04	80/09/03
71921 MERCURY	SEDMG/KG	DRY WGT		1	.020000			.020000	.020000	75/09/04	75/09/04
80154 SUSP SED	CONC	MG/L		4	20.5000	225.666	15.0222	38.0000	7.00000	76/01/12	78/03/23
			J	2	8.49998	24.5000	4.94975	12.0000	5.00000	75/07/25	75/08/27
			TOT	6	16.5000	178.700	13.3679	38.0000	5.00000	75/07/25	78/03/23
80155 SUSP SED	DISCHARG	TONS/DAY		4	16.6000	301.120	17.3528	41.0000	3.80000	76/01/12	78/03/23

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244470
40 28 06.0 107 14 47.0 2
STOKES GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 780629 14050001000
0000 CLASS 00 CSN-RSP 0467054-0269577

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		34	9.13232	35.3386	5.94463	22.0000	.500000	78/03/30	82/04/14
00028	ANALYZE	AGENCY	CODE		27	80020.0	-.504E+04	.000000	80020.0	80020.0	79/04/09	82/04/14
00061	STREAM	FLOW,	INST-CFS		52	49.0127	8720.99	93.3862	444.000	.010000	78/03/30	82/04/14
				J	1	73.0000			73.0000	73.0000	79/04/09	79/04/09
00095	CNDUCTVY	AT 25C	MICROMHO	TOT	53	49.4653	8564.13	92.5426	444.000	.010000	78/03/30	82/04/14
00300	DO		MG/L		20	4124.50	8608148	2933.96	10000.0	820.000	78/03/30	82/04/14
					4	9.62500	4.17603	2.04353	12.0000	7.10000	80/05/28	81/05/28
				L	1	8.50000			8.50000	8.50000	80/04/15	80/04/15
00400	PH		SU	TOT	5	9.40000	3.38513	1.83987	12.0000	7.10000	80/04/15	81/05/28
00403	LAB	PH	SU		12	8.04166	.273637	.523103	8.70000	7.00000	78/03/30	81/05/28
00405	CO2		MG/L		3	8.33333	.023483	.153243	8.50000	8.20000	81/04/01	81/05/28
00410	T ALK	CACO3	MG/L		4	11.3500	292.617	17.1060	37.0000	2.30000	78/03/30	79/05/07
00440	HCO3 ION	HCO3	MG/L		7	221.429	8514.30	92.2730	370.000	100.000	78/03/30	80/05/28
00445	CO3 ION	CO3	MG/L		4	280.000	4866.66	69.7615	340.000	210.000	78/03/30	79/05/07
00613	NO2-N	DISS	MG/L		4	13.0000	676.000	26.0000	52.0000	.000000	78/03/30	79/05/07
00618	NO3-N	DISS	MG/L		1	.390000			.390000	.390000	81/05/28	81/05/28
00625	TOT KJEL	N	MG/L		1	41.0000			41.0000	41.0000	81/05/28	81/05/28
00631	NO2&NO3	N-DISS	MG/L		8	4.02000	7.30266	2.70234	8.30000	.960001	80/04/15	80/05/01
00660	ORTHOPO4	PO4	MG/L		10	23.1200	445.489	21.1066	73.0000	5.10000	78/03/30	81/05/28
00665	PHOS-TOT		MG/L P		10	.219000	.064610	.254185	.670001	.000000	78/03/30	81/05/28
00668	PHOS MUD	DRY WGT	MG/KG-P		8	.920000	.487286	.698059	2.00000	.120000	80/04/15	80/05/01
00671	PHOS-DIS	ORTHO	MG/L P		7	728.571	10381.7	101.890	920.000	590.000	79/08/02	80/06/25
					9	.080000	.007075	.084113	.220000	.000000	78/03/30	81/05/28
				K	1	.010000			.010000	.010000	79/05/07	79/05/07
00680	T ORG C	C	MG/L	TOT	10	.073000	.006779	.082334	.220000	.000000	78/03/30	81/05/28
00681	D ORG C	C	MG/L		8	27.3333	69.4672	8.33470	39.0000	14.0000	78/03/30	81/04/01
00686	BM INORG	CARBON	GM/KG-C		5	24.2000	111.700	10.5688	42.0000	15.0000	79/04/09	81/04/01
00687	BM ORG	CARBON	GM/KG-C		7	1.90000	10.3933	3.22387	8.70000	.000000	79/08/02	80/06/25
00689	S ORG C	C	MG/L		7	15.1857	17.8748	4.22785	22.0000	9.30000	79/08/02	80/06/25
00693	CARBON,B	M-IN+ORG	. GM/KG		1	.000000			.000000	.000000	80/06/25	80/06/25
00900	TOT HARD	CACO3	MG/L		7	17.0000	9.00000	3.00000	22.0000	13.0000	79/08/02	80/06/25
00902	NC HARD	CACO3	MG/L		9	2236.67	1775552	1332.50	4000.00	310.000	73/03/30	81/05/28
00915	CALCIUM	CA,DISS	MG/L		6	1333.33	827588	909.719	2700.00	210.000	78/03/30	80/05/28
00925	MGNSIUM	MG,DISS	MG/L		9	170.222	7744.20	88.0012	280.000	50.0000	78/03/30	81/05/28
00930	SODIUM	NA,DISS	MG/L		9	438.222	76523.5	276.629	810.000	44.0000	78/03/30	81/05/28
00931	SODIUM	ADSBTION	RATIO		9	805.555	213878	462.470	1400.00	100.000	78/03/30	81/05/28
00932	PERCENT	SODIUM	%		9	7.08889	5.95618	2.44053	9.60000	2.50000	78/03/30	81/05/28
00933	NA+K		MG/L		9	43.8889	5.11279	2.26115	49.0000	41.0000	78/03/30	81/05/28
00935	PTSSIUM	K,DISS	MG/L		2	510.000	80000.0	282.843	710.000	310.000	79/05/07	80/04/15
00940	CHLORIDE	TOTAL	MG/L		9	7.07777	2.21201	1.48728	8.60000	4.70000	78/03/30	81/05/28
					10	99.9000	5297.21	72.7820	240.000	15.0000	78/03/30	81/05/28

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244470
40 28 06.0 107 14 47.0 2
STOKES GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 780629 14050001000
0000 CLASS 00 CSN-RSP 0467054-0269577

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00945 SULFATE	SO4-TOT	MG/L		10	3275.00	3849584	1962.04	6200.00	350.000	78/03/30	81/05/28
00950 FLUORIDE	F,DISS	MG/L		10	.260000	.002667	.051641	.300000	.200000	78/03/30	81/05/28
00955 SILICA	DISOLVED	MG/L		10	4.34999	19.3206	4.39552	11.0000	.100000	78/03/30	81/05/28
01000 ARSENIC	AS,DISS	UG/L		5	2.20000	1.20000	1.09545	4.00000	1.00000	78/03/30	81/04/01
01001 ARSENIC	AS,SUSP	UG/L		3	2.00000	4.00000	2.00000	4.00000	.000000	80/04/15	81/04/01
01002 ARSENIC	AS,TOT	UG/L		16	3.87500	5.58333	2.36291	9.00000	1.00000	79/04/09	82/04/14
01003 ARSENIC	SEDMG/KG	DRY WGT		7	8.71428	1.23816	1.11273	10.0000	7.00000	79/08/02	80/06/25
01020 BORON	B,DISS	UG/L		10	333.000	34312.2	185.236	590.000	70.0000	78/03/30	81/05/28
01025 CADMIUM	CD,DISS	UG/L		3	.000000	.000000	.000000	.000000	.000000	80/04/15	81/04/01
			K	2	2.00000	.000000	.000000	2.00000	2.00000	78/03/30	79/04/09
			TOT	5	.800000	1.20000	1.09544	2.00000	.000000	78/03/30	81/04/01
01026 CADMIUM	CD,SUSP	UG/L		4	1.50000	1.00000	1.00000	3.00000	1.00000	79/04/09	81/04/01
01027 CADMIUM	CD,TOT	UG/L		12	1.25000	1.47727	1.21543	4.00000	.000000	79/04/09	82/04/14
			K	4	1.00000	.000000	.000000	1.00000	1.00000	82/04/13	82/04/14
			TOT	16	1.18750	1.09583	1.04682	4.00000	.000000	79/04/09	82/04/14
01028 CD MUD	DRY WGT	MG/KG-CD		7	1.28571	.571429	.755929	2.00000	.000000	79/08/02	80/06/25
01029 CHROMIUM	SEDMG/KG	DRY WGT		7	6.14286	4.14290	2.03541	10.0000	4.00000	79/08/02	80/06/25
01034 CHROMIUM	CR,TOT	UG/L		13	12.0000	128.833	11.3505	28.0000	.000000	80/04/08	82/04/14
01037 COBALT	CO,TOTAL	UG/L		14	5.57143	15.6484	3.95580	15.0000	1.00000	80/04/08	82/04/14
01038 CO MUD	DRY WGT	MG/KG-CO		7	9.57143	1.28577	1.13392	10.0000	7.00000	79/08/02	80/06/25
01040 COPPER	CU,DISS	UG/L		5	4.60000	2.80002	1.67333	7.00000	3.00000	78/03/30	81/04/01
01041 COPPER	CU,SUSP	UG/L		4	14.0000	184.000	13.5647	34.0000	4.00000	79/04/09	81/04/01
01042 COPPER	CU,TOT	UG/L		16	18.8750	109.183	10.4491	40.0000	6.00000	79/04/09	82/04/14
01043 COPPER	SEDMG/KG	DRY WGT		7	13.1429	23.4762	4.84523	20.0000	7.00000	79/08/02	80/06/25
01044 IRON	FE,SUSP	UG/L		8	7192.50	.200E+09	14155.1	41000.0	10.0000	79/04/09	81/05/28
01045 IRON	FE,TOT	UG/L		20	13069.0	.221E+09	14899.3	49000.0	80.0000	79/04/09	82/04/14
01046 IRON	FE,DISS	UG/L		8	63.7500	341.071	18.4681	100.000	40.0000	78/03/30	81/05/28
			K	1	10.0000			10.0000	10.0000	79/04/09	79/04/09
			TOT	9	57.7778	619.447	24.8887	100.000	10.0000	78/03/30	81/05/28
01049 LEAD	PB,DISS	UG/L		5	2.00000	9.50000	3.08221	7.00000	.000000	78/03/30	81/04/01
			U	1	.000000			.000000	.000000	79/05/07	79/05/07
			TOT	6	1.66667	8.26667	2.87518	7.00000	.000000	78/03/30	81/04/01
01050 LEAD	PB,SUSP	UG/L		5	15.0000	180.500	13.4350	35.0000	.000000	79/04/09	81/04/01
01051 LEAD	PB,TOT	UG/L		16	13.1250	165.317	12.8576	39.0000	.000000	79/04/09	82/04/14
			K	1	1.00000			1.00000	1.00000	82/04/13	82/04/13
			TOT	17	12.4118	163.632	12.7919	39.0000	.000000	79/04/09	82/04/14
01052 LEAD	SEDMG/KG	DRY WGT		7	15.0000	25.0000	5.00000	20.0000	10.0000	79/08/02	80/06/25
01053 MN MUD	DRY WGT	MG/KG-MN		7	221.429	1180.97	34.3652	280.000	190.000	79/08/02	80/06/25
01054 MANGNESE	MN,SUSP	UG/L		8	101.250	37469.6	193.571	560.000	.000000	79/04/09	81/05/28
01055 MANGNESE	MN	UG/L		20	177.500	32935.5	181.481	620.000	20.0000	79/04/09	82/04/14
01056 MANGNESE	MN,DISS	UG/L		9	28.8889	136.112	11.6667	50.0000	10.0000	78/03/30	81/05/28

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244470
40 28 06.0 107 14 47.0 2
STOKES GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT./STREAM

112WRD 780629 14050001000
0000 CLASS 00 CSN-RSP 0467054-0269577

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01060 MOLY	MO,DISS	UG/L		4	2.75000	2.91667	1.70782	5.00000	1.00000	79/04/09	81/04/01
01061 MOLY	MO,SUSP	UG/L		4	3.00000	4.00000	2.00000	6.00000	2.00000	79/04/09	81/04/01
01062 MOLY	MO,TOT	UG/L		10	4.60000	6.04446	2.45855	11.0000	3.00000	79/04/09	81/04/01
01065 NICKEL	NI,DISS	UG/L		5	2.20000	2.20000	1.48324	4.00000	.000000	78/03/30	81/04/01
01066 NICKEL	NI,SUSP	UG/L		4	16.5000	248.333	15.7586	38.0000	1.00000	79/04/09	81/04/01
01067 NICKEL	NI,TOTAL	UG/L		11	20.4545	195.073	13.9669	47.0000	4.00000	79/04/09	81/04/01
01085 VANADIUM	V,DISS	UG/L		1	.000000			.000000	.000000	78/03/30	78/03/30
01090 ZINC	ZN,DISS	UG/L		6	18.3333	56.6669	7.52774	30.0000	10.0000	78/03/30	81/04/01
01091 ZINC	ZN,SUSP	UG/L		5	60.0000	7200.00	84.8528	210.000	10.0000	79/04/09	81/04/01
01092 ZINC	ZN,TOT	UG/L		17	90.0000	5325.00	72.9726	270.000	30.0000	79/04/09	82/04/14
01093 ZINC	SEDMG/KG	DRY WGT		7	25.4286	265.287	16.2876	60.0000	13.0000	79/08/02	80/06/25
01095 ANTIMONY	SB,DISS	UG/L		1	1.00000			1.00000	1.00000	78/03/30	78/03/30
01105 ALUMINUM	AL,TOT	UG/L		17	9158.23	.694E+08	8333.80	31000.0	60.0000	79/04/09	82/04/14
01106 ALUMINUM	AL,DISS	UG/L		5	36.0000	780.000	27.9285	70.0000	10.0000	79/04/09	81/04/01
01107 ALUMINUM	AL,SUSP	UG/L		5	3994.00	.173E+08	4167.63	9900.00	50.0000	79/04/09	81/04/01
01108 AL MUD	DRY WGT	MG/KG-AL		7	4185.71	1598128	1264.17	6100.00	2600.00	79/08/02	80/06/25
01145 SELENIUM	SE,DISS	UG/L		5	105.400	12228.8	110.584	300.000	24.0000	78/03/30	81/04/01
01146 SELENIUM	SE,SUSP	UG/L		4	5.50000	71.0000	8.42615	18.0000	.000000	79/04/09	81/04/01
01147 SELENIUM	SE,TOT	UG/L		16	68.9375	4798.19	69.2690	270.000	24.0000	79/04/09	82/04/14
01148 SELENIUM	SEDMG/KG	DRY WGT		7	2.85714	8.14288	2.85357	9.00000	1.00000	79/08/02	80/06/25
01170 FE MUD	DRY WGT	MG/KG-FE		7	4414.28	9491434	3080.82	11000.0	2200.00	79/08/02	80/06/25
70301 DISS SOL	SUM	MG/L		9	5136.33	9439396	3072.36	9280.00	657.000	78/03/30	81/05/28
70302 DISS SOL	TONS/DAY			9	157.927	66367.9	257.620	743.000	.830000	78/03/30	81/05/28
70303 DISS SOL	TONS PER	ACRE-FT		9	6.98111	17.4002	4.17136	12.6000	.890001	78/03/30	81/05/28
70331 SUSP SED	PARTSIZE	%<.062MM		19	90.0209	466.288	21.5937	100.0000	2.00000	78/04/04	82/04/14
70342 SUSP SED	PARTSIZE	%<.062MM		7	93.4284	10.6576	3.26459	98.0000	90.0000	80/04/16	80/04/25
71851 NITRATE	DISS-NO3	MG/L		1	180.000			180.000	180.000	81/05/28	81/05/28
71856 NITRITE	DISS-NO2	MG/L		1	1.30000			1.30000	1.30000	81/05/28	81/05/28
71886 TOTAL P	AS PO4	MG/L		8	2.82125	4.52875	2.12809	6.10000	.370000	80/04/15	80/05/01
71890 MERCURY	HG,DISS	UG/L		3	.033333	.003333	.057735	.100000	.000000	80/04/15	81/04/01
			K	2	.100000	-.372E-08	.000000	.100000	.100000	78/03/30	79/04/09
			TOT	5	.060000	.003000	.054772	.100000	.000000	78/03/30	81/04/01
71895 MERCURY	HG,SUSP	UG/L		4	.050000	.003333	.057735	.100000	.000000	79/04/09	81/04/01
71900 MERCURY	HG,TOTAL	UG/L		15	.106667	.004952	.070373	.200000	.000000	80/04/08	82/04/14
			K	1	.100000			.100000	.100000	79/04/09	79/04/09
			TOT	16	.106250	.004625	.068007	.200000	.000000	79/04/09	82/04/14
71921 MERCURY	SEDMG/KG	DRY WGT		7	.021429	.000014	.003780	.030000	.020000	79/08/02	80/06/25
80154 SUSP SED	CONC	MG/L		47	405.440	270011	519.626	1900.00	16.0000	78/03/30	82/04/14
80155 SUSP SED	DISCHARG	TONS/DAY		47	167.210	226474	475.892	2280.00	.000000	78/03/30	82/04/14
82068 POTAS-40	K-40,DIS	PC/LITER		3	6.23333	.043442	.208427	6.40000	6.00000	81/04/01	81/05/28

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244460
40 22 57.0 107 16 49.0 2
WATERING TROUGH GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 790519 14050001000
0000 CLASS 00 CSN-RSP 0501114-0269566

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER	TEMP	CENT		25	8.44000	20.4650	4.52383	20.5000	1.50000	78/04/09	81/09/23
00028 ANALYZE	AGENCY	CODE		33	77596.0	.193E+09	13924.7	80020.0	28.0000	78/07/12	81/09/23
00061 STREAM	FLOW,	INST-CFS		25	3.25739	242.621	15.5763	78.0000	.010000	78/04/09	81/09/23
00095 CNDUCTVY	AT 25C	MICROMHO		26	1010.15	11022.7	104.989	1250.00	744.000	78/04/09	81/09/23
00300 DO		MG/L		19	8.65789	2.50038	1.58126	12.0000	5.80000	79/08/15	81/09/23
00400 PH		SU		26	7.77307	.050879	.225564	8.20000	7.40000	78/04/09	81/09/23
00403 LAB	PH	SU		13	8.01538	.011454	.107025	8.30000	7.90000	80/10/02	81/09/23
00405 CO2		MG/L		5	13.7200	127.277	11.2817	29.0000	3.90000	78/04/09	79/08/15
00410 T ALK	CACO3	MG/L		13	336.923	4173.33	64.6013	450.000	210.000	78/04/09	80/08/27
00440 HCO3 ION	HCO3	MG/L		5	456.000	4230.00	65.0384	550.000	390.000	78/04/09	79/08/15
00445 CO3 ION	CO3	MG/L		5	.000000	.000000	.000000	.000000	.000000	78/04/09	79/08/15
00613 NO2-N	DISS	MG/L		1	.000000			.000000	.000000	81/05/28	81/05/28
00618 NO3-N	DISS	MG/L		1	5.00000			5.00000	5.00000	81/05/28	81/05/28
00625 TOT KJEL	N	MG/L		3	.846667	.019234	.138686	1.00000	.730001	80/04/15	80/04/25
00631 NO2&NO3	N-DISS	MG/L		26	.411538	.919764	.959043	5.00000	.010000	78/04/09	81/09/23
00660 ORTHOPO4	PO4	MG/L		26	.076923	.005254	.072486	.250000	.000000	78/04/09	81/09/23
00665 PHOS-TOT		MG/L P		3	.140000	.001200	.034641	.180000	.120000	80/04/15	80/04/25
00668 PHOS MUD	DRY WGT	MG/KG-P		7	655.714	57029.2	238.808	1100.00	420.000	79/08/02	80/06/26
00671 PHOS-DIS	ORTHO	MG/L P		24	.027500	.000541	.023266	.080000	.000000	78/07/12	81/09/23
			K	2	.010000-	.145E-10	.000000	.010000	.010000	78/04/09	79/08/15
			TOT	26	.026154	.000521	.022817	.080000	.000000	78/04/09	81/09/23
00680 T ORG C	C	MG/L		7	9.88571	26.9881	5.19501	20.0000	4.00000	79/08/15	81/07/23
00681 D ORG C	C	MG/L		7	6.88571	8.02148	2.83222	11.0000	3.90000	79/08/15	81/07/23
00686 BM INORG	CARBON	GM/KG-C		7	1.77143	12.6691	3.55936	9.60000	.000000	79/08/02	80/06/26
00687 BM ORG	CARBON	GM/KG-C		7	42.2857	545.241	23.3504	72.0000	15.0000	79/08/02	80/06/26
00689 S ORG C	C	MG/L		2	.000000	.000000	.000000	.000000	.000000	80/06/26	80/06/26
00693 CARBON,B	M-IN+ORG	. GM/KG		7	44.0000	466.000	21.5870	72.0000	15.0000	79/08/02	80/06/26
00900 TOT HARD	CACO3	MG/L		24	500.000	2824.00	53.1413	580.000	350.000	78/04/09	81/09/23
00902 NC HARD	CACO3	MG/L		18	158.333	1414.71	37.6126	260.000	100.000	78/04/09	81/01/28
00915 CALCIUM	CA,DISS	MG/L		26	105.115	132.590	11.5148	120.000	75.0000	78/04/09	81/09/23
00925 MGNSIUM	MG,DISS	MG/L		26	57.3846	46.8875	6.84744	69.0000	39.0000	78/04/09	81/09/23
00930 SODIUM	NA,DISS	MG/L		26	39.3846	53.0467	7.28332	61.0000	26.0000	78/04/09	81/09/23
00931 SODIUM	ADSBTION	RATIO		26	.765383	.013557	.116433	1.10000	.600000	78/04/09	81/09/23
00932 PERCENT	SODIUM	%		26	15.1154	6.50641	2.55077	23.0000	13.0000	78/04/09	81/09/23
00933 NA+K		MG/L		4	53.2500	88.2500	9.39415	67.0000	46.0000	79/06/29	79/11/05
00935 PTSSIUM	K,DISS	MG/L		26	5.53461	.715996	.846166	7.80000	4.30000	78/04/09	81/09/23
00940 CHLORIDE	TOTAL	MG/L		26	10.5000	5.65071	2.37712	20.0000	7.60000	78/04/09	81/09/23
00945 SULFATE	SO4-TOT	MG/L		26	228.077	1144.20	33.8260	320.000	170.000	78/04/09	81/09/23
00950 FLUORIDE	F,DISS	MG/L		26	.257692	.005738	.075753	.500000	.200000	78/04/09	81/09/23
00955 SILICA	DISOLVED	MG/L		26	10.9615	13.2444	3.63928	19.0000	.100000	78/04/09	81/09/23
01000 ARSENIC	AS,DISS	UG/L		4	1.00000	.000000	.000000	1.00000	1.00000	79/08/15	81/04/28

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244460
40 22 57.0 107 16 49.0 2
WATERING TROUGH GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 790519 14050001000
0000 CLASS 00 CSN-RSP 0501114-0269566

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01001 ARSENIC	AS,SUSP	UG/L		3	.333333	.333333	.577350	1.00000	.000000	80/04/22	81/04/28
01002 ARSENIC	AS,TOT	UG/L		6	1.16667	.166668	.408250	2.00000	1.00000	79/08/15	81/04/28
01003 ARSENIC	SEDMG/KG	DRY WGT		7	5.14286	1.14288	1.06905	7.00000	4.00000	79/08/02	80/06/26
01020 BORON	B,DISS	UG/L		26	88.0769	496.157	22.2746	120.000	50.0000	78/04/09	81/09/23
01025 CADMIUM	CD,DISS	UG/L	K	4	1.25000	.250000	.500000	2.00000	1.00000	79/08/15	81/04/28
01026 CADMIUM	CD,SUSP	UG/L		1	.000000			.000000	.000000	79/08/15	79/08/15
01027 CADMIUM	CD,TOT	UG/L		5	.400000	.300000	.547722	1.00000	.000000	80/04/15	81/04/28
			K	1	2.00000			2.00000	2.00000	79/08/15	79/08/15
			TOT	6	.666667	.666667	.816497	2.00000	.000000	79/08/15	81/04/28
01028 CD MUD	DRY WGT	MG/KG-CD		7	.857143	.142857	.377965	1.00000	.000000	79/08/02	80/06/26
01029 CHROMIUM	SEDMG/KG	DRY WGT		7	3.57143	.952393	.975906	5.00000	2.00000	79/08/02	80/06/26
01034 CHROMIUM	CR,TOT	UG/L		3	1.66667	4.33334	2.08167	4.00000	.000000	80/04/15	80/04/25
01037 COBALT	CO,TOTAL	UG/L		3	.666667	1.33333	1.15470	2.00000	.000000	80/04/15	80/04/25
01038 CO MUD	DRY WGT	MG/KG-CO		7	9.71428	.571492	.755971	10.0000	8.00000	79/08/02	80/06/26
01040 COPPER	CU,DISS	UG/L		4	7.25000	96.9167	9.84463	22.0000	2.00000	79/08/15	81/04/28
01041 COPPER	CU,SUSP	UG/L		4	6.50000	137.000	11.7047	24.0000	.000000	79/08/15	81/04/28
01042 COPPER	CU,TOT	UG/L		6	7.00000	99.2000	9.95992	27.0000	.000000	79/08/15	81/04/28
01043 COPPER	SEDMG/KG	DRY WGT		7	8.85714	17.4762	4.18046	13.0000	3.00000	79/08/02	80/06/26
01044 IRON	FE,SUSP	UG/L		20	667.000	335896	579.565	2100.00	20.0000	79/06/29	81/09/23
01045 IRON	FE,TOT	UG/L		25	658.400	275364	524.751	2100.00	50.0000	79/06/29	81/09/23
01046 IRON	FE,DISS	UG/L		23	28.6956	684.585	26.1646	90.0000	10.0000	78/04/09	81/09/23
			K	3	10.0000	.000000	.000000	10.0000	10.0000	80/10/02	81/08/10
			TOT	26	26.5384	639.539	25.2891	90.0000	10.0000	78/04/09	81/09/23
01049 LEAD	PB,DISS	UG/L		6	1.16667	1.36667	1.16905	3.00000	.000000	80/04/22	81/07/23
			U	1	.000000			.000000	.000000	79/08/15	79/08/15
			TOT	7	1.00000	1.33333	1.15470	3.00000	.000000	79/08/15	81/07/23
01050 LEAD	PB,SUSP	UG/L		7	3.71428	11.5714	3.40168	10.0000	.000000	79/08/15	81/07/23
01051 LEAD	PB,TOT	UG/L		9	4.00000	8.25000	2.87228	10.0000	.000000	79/08/15	81/07/23
01052 LEAD	SEDMG/KG	DRY WGT		7	11.4286	14.2858	3.77965	20.0000	10.0000	79/08/02	80/06/26
01053 MN MUD	DRY WGT	MG/KG-MN		7	207.857	4832.16	69.5137	310.000	95.0000	79/08/02	80/06/26
01054 MANGNESE	MN,SUSP	UG/L		24	52.2500	8112.10	90.0672	440.000	.000000	79/06/29	81/09/23
01055 MANGNESE	MN	UG/L		25	86.0000	10666.7	103.280	470.000	20.0000	79/06/29	81/09/23
01056 MANGNESE	MN,DISS	UG/L		26	42.1538	3513.57	59.2754	280.000	10.0000	78/04/09	81/09/23
01060 MOLY	MO,DISS	UG/L	K	4	10.0000	.000000	.000000	10.0000	10.0000	79/08/15	81/04/28
01061 MOLY	MO,SUSP	UG/L		1	.000000			.000000	.000000	79/08/15	79/08/15
01062 MOLY	MO,TOT	UG/L		5	1.00000	1.00000	1.00000	2.00000	.000000	80/04/15	81/04/28
			K	1	1.00000			1.00000	1.00000	79/08/15	79/08/15
			TOT	6	1.00000	.800000	.894427	2.00000	.000000	79/08/15	81/04/28
01065 NICKEL	NI,DISS	UG/L		4	2.50000	1.66667	1.29099	4.00000	1.00000	79/08/15	81/04/28
01066 NICKEL	NI,SUSP	UG/L		4	2.25000	2.91667	1.70782	4.00000	.000000	79/08/15	81/04/28
01067 NICKEL	NI,TOTAL	UG/L		6	3.83333	4.56668	2.13698	7.00000	2.00000	79/08/15	81/04/28

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244460
40 22 57.0 107 16 49.0 2
WATERING TROUGH GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 790519 14050001000
0000 CLASS 00 CSN-RSP 0501114-0269566

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01090	ZINC	ZN,DISS	UG/L		5	11.0000	26.5000	5.14781	20.0000	7.00000	79/08/15	81/07/23
				K	2	3.00000	.000000	.000000	3.00000	3.00000	80/08/27	80/10/02
				TOT	7	8.71428	32.9048	5.73627	20.0000	3.00000	79/08/15	81/07/23
01091	ZINC	ZN,SUSP	UG/L		5	12.2000	264.200	16.2542	40.0000	.000000	79/08/15	81/07/23
01092	ZINC	ZN,TOT	UG/L		8	25.0000	257.143	16.0357	50.0000	10.0000	80/04/15	81/07/23
				K	1	20.0000			20.0000	20.0000	79/08/15	79/08/15
				TOT	9	24.4444	227.778	15.0923	50.0000	10.0000	79/08/15	81/07/23
01093	ZINC	SEDMG/KG	DRY WGT		7	26.7143	68.9056	8.30094	41.0000	13.0000	79/08/02	80/06/26
01105	ALUMINUM	AL,TOT	UG/L		9	200.000	11750.0	108.397	410.000	40.0000	79/08/15	81/07/23
01106	ALUMINUM	AL,DISS	UG/L		7	10.0000	66.6667	8.16497	20.0000	.000000	79/08/15	81/07/23
01107	ALUMINUM	AL,SUSP	UG/L		7	171.429	12481.0	111.718	390.000	30.0000	79/08/15	81/07/23
01108	AL MUD	DRY WGT	MG/KG-AL		7	2400.00	946667	972.968	3900.00	1500.00	79/08/02	80/06/26
01145	SELENIUM	SE,DISS	UG/L		4	1.00000	.000000	.000000	1.00000	1.00000	79/08/15	81/04/28
01146	SELENIUM	SE,SUSP	UG/L		4	.000000	.000000	.000000	.000000	.000000	79/08/15	81/04/28
01147	SELENIUM	SE,TOT	UG/L		6	1.00000	.000000	.000000	1.00000	1.00000	79/08/15	81/04/28
01148	SELENIUM	SEDMG/KG	DRY WGT		7	.000000	.000000	.000000	.000000	.000000	79/08/02	80/06/26
01170	FE MUD	DRY WGT	MG/KG-FE		7	3685.71	4421432	2102.72	7600.00	1600.00	79/08/02	80/06/26
70301	DISS SOL	SUM	MG/L		26	663.923	5835.72	76.3919	808.000	486.000	78/04/09	81/09/23
70302	DISS SOL	TONS/DAY			24	.216666	.280127	.529270	2.62000	.020000	78/04/09	81/09/23
70303	DISS SOL	TONS PER	ACRE-FT		26	.902690	.011016	.104958	1.10000	.660001	78/04/09	81/09/23
71851	NITRATE	DISS-NO3	MG/L		1	22.0000			22.0000	22.0000	81/05/28	81/05/28
71856	NITRITE	DISS-NO2	MG/L		1	.000000			.000000	.000000	81/05/28	81/05/28
71886	TOTAL P	AS PO4	MG/L		3	.430000	.010800	.103923	.550000	.370000	80/04/15	80/04/25
71890	MERCURY	HG,DISS	UG/L		3	.000000	.000000	.000000	.000000	.000000	80/04/22	81/04/28
				K	1	.100000			.100000	.100000	79/08/15	79/08/15
				TOT	4	.025000	.002500	.050000	.100000	.000000	79/08/15	81/04/28
71895	MERCURY	HG,SUSP	UG/L		4	.025000	.002500	.050000	.100000	.000000	79/08/15	81/04/28
71900	MERCURY	HG,TOTAL	UG/L		5	.020000	.002000	.044721	.100000	.000000	80/04/15	81/04/28
				K	1	.100000			.100000	.100000	79/08/15	79/08/15
				TOT	6	.033333	.002667	.051640	.100000	.000000	79/08/15	81/04/28
71921	MERCURY	SEDMG/KG	DRY WGT		7	.014286	.000029	.005345	.020000	.010000	79/08/02	80/06/26
72005	SAMPLE	SOURCE	CODE		3	6.99999	.000114	.010698	6.99999	6.99999	78/03/01	78/07/12
80154	SUSP SED	CONC	MG/L		23	48.0563	604.153	24.5795	107.000	8.30000	78/04/09	81/09/23
80155	SUSP SED	DISCHARG	TONS/DAY		20	.570500	6.03163	2.45594	11.0000	.000000	79/11/05	81/09/23
82068	POTAS-40	K-40,DIS	PC/LITER		6	3.61666	.081711	.285851	4.00000	3.20000	81/03/06	81/07/23

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244464
40 23 28.0 107 16 15.0 2
HUBBERSON GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 790519 14050001000
0000 CLASS 00 CSN-RSP 0501115-0269571

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		40	10.3999	61.6697	7.85300	25.0000	.500000	78/03/01	82/05/18
00028	ANALYZE	AGENCY	CODE		45	80020.0	-.446E+04	.000000	80020.0	80020.0	78/07/12	82/05/18
00061	STREAM	FLOW,	INST-CFS		37	4.98737	99.1250	9.95615	43.0000	.010000	78/03/01	82/05/18
				J	2	.225002	.011251	.106069	.300005	.150000	78/07/12	79/04/27
				TOT	39	4.74315	95.0405	9.74887	43.0000	.010000	78/03/01	82/05/18
00095	CNDUCTVY	AT 25C	MICROMHO		41	1009.07	184291	429.291	1750.00	340.000	78/03/01	82/05/18
00300	DO		MG/L		19	8.57368	3.50096	1.87109	11.8000	4.50000	79/12/10	81/08/10
				L	1	8.70000			8.70000	8.70000	80/04/15	80/04/15
				TOT	20	8.58000	3.31751	1.82140	11.8000	4.50000	79/12/10	81/08/10
00400	PH		SU		32	7.94062	.083772	.289433	8.60000	7.40000	78/03/01	82/04/29
00403	LAB	PH	SU		12	8.00833	.031783	.178277	8.20000	7.70000	80/10/02	81/08/10
00405	CO2		MG/L		7	6.00000	26.0267	5.10164	16.0000	1.20000	78/03/01	79/06/29
00410	T ALK	CACO3	MG/L		16	266.250	9038.33	95.0701	420.000	100.000	78/03/01	80/08/27
00440	HCO3 ION	HCO3	MG/L		7	342.857	13490.6	116.149	510.000	200.000	78/03/01	79/06/29
00445	CO3 ION	CO3	MG/L		8	.000000	.000000	.000000	.000000	.000000	78/03/01	79/07/31
00613	NO2-N	DISS	MG/L		1	.000000			.000000	.000000	81/05/28	81/05/28
00618	NO3-N	DISS	MG/L		1	.110000			.110000	.110000	81/05/28	81/05/28
00625	TOT KJEL	N	MG/L		8	8.03750	19.5255	4.41877	12.0000	2.20000	80/04/15	80/05/01
00631	NO2&NO3	N-DISS	MG/L		27	.202963	.058460	.241785	.870001	.000000	78/03/01	81/08/10
				K	2	.100000	-.372E-08	.000000	.100000	.100000	78/07/12	79/06/29
				TOT	29	.195862	.054989	.234498	.870001	.000000	78/03/01	81/08/10
00660	ORTHOPO4	PO4	MG/L		29	.035517	.003776	.061446	.280000	.000000	78/03/01	81/08/10
00665	PHOS-TOT		MG/L P		11	1.85091	2.08794	1.44497	3.90000	.140000	80/04/15	82/05/18
				L	1	1.10000			1.10000	1.10000	82/04/28	82/04/28
				TOT	12	1.78833	1.94511	1.39467	3.90000	.140000	80/04/15	82/05/18
00668	PHOS MUD	DRY WGT	MG/KG-P		7	707.143	7791.00	88.2666	840.000	560.000	79/08/02	80/06/26
00671	PHOS-DIS	ORTHO	MG/L P		27	.012593	.000420	.020493	.090000	.000000	78/03/01	81/08/10
				K	2	.010000	-.145E-10	.000000	.010000	.010000	78/05/31	78/06/20
				TOT	29	.012414	.000390	.019758	.090000	.000000	78/03/01	81/08/10
00680	T ORG C	C	MG/L		11	27.4181	1018.97	31.9213	95.0000	6.80000	78/06/20	81/07/23
00681	D ORG C	C	MG/L		11	14.3000	190.198	13.7912	55.0000	5.60000	78/06/20	81/07/23
00686	BM INORG	CARBON	GM/KG-C		7	1.31429	5.04143	2.24531	4.70000	.000000	79/08/02	80/06/26
00687	BM ORG	CARBON	GM/KG-C		7	26.7143	107.572	10.3717	42.0000	14.0000	79/08/02	80/06/26
00689	S ORG C	C	MG/L		5	.000000	.000000	.000000	.000000	.000000	80/06/26	80/06/26
00693	CARBON,B	M-IN+ORG	. GM/KG		7	28.0000	81.0000	9.00000	42.0000	18.0000	79/08/02	80/06/26
00900	TOT HARD	CACO3	MG/L		28	603.571	28053.6	167.492	840.000	160.000	78/03/01	81/08/10
00902	NC HARD	CACO3	MG/L		20	306.750	12827.0	113.257	500.000	55.0000	78/03/01	81/01/28
00915	CALCIUM	CA,DISS	MG/L		28	116.393	1188.10	34.4689	170.000	34.0000	78/03/01	81/08/10
00925	MGNSIUM	MG,DISS	MG/L		28	75.8571	495.018	22.2490	120.000	17.0000	78/03/01	81/08/10
00930	SODIUM	NA,DISS	MG/L		28	58.0357	538.185	23.1988	94.0000	11.0000	78/03/01	81/08/10
00931	SODIUM	ADSBTION	RATIO		28	1.01071	.089889	.299815	1.50000	.400000	78/03/01	81/08/10

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244464
40 23 28.0 107 16 15.0 2
HUBBERSON GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 790519 14050001000
0000 CLASS 00 CSN-RSP 0501115-0269571

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00932 PERCENT	SODIUM	%			28	17.0357	12.1842	3.49058	29.0000	12.0000	78/03/01	81/08/10
00933 NA+K		MG/L			4	67.7500	61.5833	7.84750	78.0000	59.0000	79/06/29	80/02/20
00935 PTSSIUM	K,DISS	MG/L			29	4.27586	.587620	.766564	6.80000	3.10000	78/03/01	81/08/10
00940 CHLORIDE	TOTAL	MG/L			29	13.1793	83.4340	9.13422	55.0000	3.40000	78/03/01	81/08/10
00945 SULFATE	SO4-TOT	MG/L			29	388.621	21626.7	147.060	710.000	70.0000	78/03/01	81/08/10
00950 FLUORIDE	F,DISS	MG/L			29	.237931	.006010	.077524	.400000	.000000	78/03/01	81/08/10
00955 SILICA	DISOLVED	MG/L			29	7.92069	3.55601	1.88574	11.0000	4.00000	78/03/01	81/08/10
01000 ARSENIC	AS,DISS	UG/L			7	1.00000	.000000	.000000	1.00000	1.00000	78/06/20	81/04/28
01001 ARSENIC	AS,SUSP	UG/L			5	11.6000	259.300	16.1028	35.0000	.000000	80/02/20	81/04/28
01002 ARSENIC	AS,TOT	UG/L			20	9.00000	88.6316	9.41443	36.0000	1.00000	79/04/27	82/05/18
01003 ARSENIC	SEDMG/KG	DRY WGT			7	8.42857	5.61910	2.37046	11.0000	5.00000	79/08/02	80/06/26
01020 BORON	B,DISS	UG/L			29	84.4828	1525.62	39.0592	260.000	50.0000	78/03/01	81/08/10
01025 CADMIUM	CD,DISS	UG/L			2	2.50000	.500000	.707107	3.00000	2.00000	78/06/20	80/04/20
				K	4	1.25000	.250000	.500000	2.00000	1.00000	79/04/27	81/04/28
				TOT	6	1.66667	.666672	.816500	3.00000	1.00000	78/06/20	81/04/28
01026 CADMIUM	CD,SUSP	UG/L			3	.000000	.000000	.000000	.000000	.000000	79/04/27	80/04/20
01027 CADMIUM	CD,TOT	UG/L			13	.769231	.358974	.599145	2.00000	.000000	80/02/20	82/04/29
				K	6	1.00000	.000000	.000000	1.00000	1.00000	82/04/13	82/05/18
				U	1	.000000			.000000	.000000	79/04/27	79/04/27
				TOT	20	.800000	.273684	.523148	2.00000	.000000	79/04/27	82/05/18
01028 CD MUD	DRY WGT	MG/KG-CD			7	1.00000	.333333	.577350	2.00000	.000000	79/08/02	80/06/26
01029 CHROMIUM	SEDMG/KG	DRY WGT			7	6.57143	3.61910	1.90239	10.0000	5.00000	79/08/02	80/06/26
01034 CHROMIUM	CR,TOT	UG/L			16	14.5000	195.333	13.9762	51.0000	1.00000	80/04/15	82/05/18
01037 COBALT	CO,TOTAL	UG/L			15	13.8667	177.552	13.3249	43.0000	1.00000	80/04/15	82/05/18
				K	1	1.00000			1.00000	1.00000	82/04/14	82/04/14
				TOT	16	13.0625	176.062	13.2689	43.0000	1.00000	80/04/15	82/05/18
01038 CO MUD	DRY WGT	MG/KG-CO			7	10.0000	.000000	.000000	10.0000	10.0000	79/08/02	80/06/26
01040 COPPER	CU,DISS	UG/L			6	4.16667	10.9667	3.31160	10.0000	1.00000	79/04/27	81/04/28
				K	1	2.00000			2.00000	2.00000	78/06/20	78/06/20
				TOT	7	3.85714	9.80954	3.13202	10.0000	1.00000	78/06/20	81/04/28
01041 COPPER	CU,SUSP	UG/L			6	62.5000	10250.3	101.244	250.000	.000000	79/04/27	81/04/28
01042 COPPER	CU,TOT	UG/L			20	49.2500	4027.25	63.4606	250.000	4.00000	79/04/27	82/05/18
01043 COPPER	SEDMG/KG	DRY WGT			7	14.4286	28.9524	5.38075	25.0000	9.00000	79/08/02	80/06/26
01044 IRON	FE,SUSP	UG/L			18	1883.33	5020294	2240.60	9500.00	120.000	79/04/27	81/08/10
01045 IRON	FE,TOT	UG/L			37	31010.8	.255E+10	50537.1	190000	130.000	79/04/27	82/05/18
01046 IRON	FE,DISS	UG/L			22	72.6363	9897.67	99.4870	430.000	10.0000	78/03/01	81/08/10
				K	6	10.0000	.000000	.000000	10.0000	10.0000	80/04/01	81/06/24
				TOT	28	59.2143	8383.21	91.5599	430.000	10.0000	78/03/01	81/08/10
01049 LEAD	PB,DISS	UG/L			11	1.81818	2.36364	1.53741	5.00000	.000000	78/06/20	81/07/23
01050 LEAD	PB,SUSP	UG/L			10	33.6000	3169.82	56.3012	170.000	.000000	79/04/27	81/07/23
01051 LEAD	PB,TOT	UG/L			22	28.3182	1754.80	41.8903	170.000	.000000	79/04/27	82/05/18

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244464
40 23 28.0 107 16 15.0 2
HUBBERSON GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 790519 14050001000
0000 CLASS 00 CSN-RSP 0501115-0269571

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01051 LEAD	PB,TOT	UG/L	K	2	1.00000	.000000	.000000	1.00000	1.00000	82/04/13	82/04/14
			TOT	24	26.0417	1661.69	40.7639	170.000	.000000	79/04/27	82/05/18
01052 LEAD	SEDMG/KG	DRY WGT		7	15.0000	25.0000	5.00000	20.0000	10.0000	79/08/02	80/06/26
01053 MN MUD	DRY WGT	MG/KG-MN		7	295.714	14162.0	119.004	430.000	140.000	79/08/02	80/06/26
01054 MANGNESE	MN,SUSP	UG/L		23	123.478	151960	389.821	1900.00	.000000	79/04/27	81/08/10
01055 MANGNESE	MN	UG/L		37	792.162	664817	815.363	3300.00	60.0000	79/04/27	82/05/18
01056 MANGNESE	MN,DISS	UG/L		27	406.296	259678	509.586	2100.00	30.0000	78/03/01	81/08/10
01060 MOLY	MO,DISS	UG/L		2	.000000	.000000	.000000	.000000	.000000	80/04/26	80/10/02
			K	3	10.0000	.000000	.000000	10.0000	10.0000	79/04/27	81/04/28
			TOT	5	6.00000	30.0000	5.47723	10.0000	.000000	79/04/27	81/04/28
01061 MOLY	MO,SUSP	UG/L		4	.250000	.250000	.500000	1.00000	.000000	79/04/27	80/10/02
01062 MOLY	MO,TOT	UG/L		12	7.00000	445.818	21.1144	74.0000	.000000	80/02/20	81/04/28
			K	1	1.00000			1.00000	1.00000	79/04/27	79/04/27
			TOT	13	6.53846	411.436	20.2839	74.0000	.000000	79/04/27	81/04/28
01065 NICKEL	NI,DISS	UG/L		5	.400000	.800000	.894427	2.00000	.000000	80/02/20	81/04/28
			K	1	2.00000			2.00000	2.00000	79/04/27	79/04/27
			U	1	.000000			.000000	.000000	78/06/20	78/06/20
			TOT	7	.571429	.952381	.975900	2.00000	.000000	78/06/20	81/04/28
01066 NICKEL	NI,SUSP	UG/L		6	64.8333	12149.0	110.222	280.000	4.00000	79/04/27	81/04/28
01067 NICKEL	NI,TOTAL	UG/L		13	56.8461	5994.47	77.4240	280.000	4.00000	79/04/27	81/04/28
01085 VANADIUM	V,DISS	UG/L		1	.300000			.300000	.300000	78/06/20	78/06/20
01090 ZINC	ZN,DISS	UG/L		8	10.8750	62.9821	7.93613	30.0000	5.00000	79/12/10	81/07/23
			K	2	11.5000	144.500	12.0208	20.0000	3.00000	78/06/20	79/04/27
			TOT	10	11.0000	65.1111	8.06914	30.0000	3.00000	78/06/20	81/07/23
01091 ZINC	ZN,SUSP	UG/L		9	75.5555	26702.8	163.410	510.000	.000000	79/04/27	81/07/23
01092 ZINC	ZN,TOT	UG/L		24	237.917	68173.7	261.101	890.000	.000000	79/04/27	82/05/18
01093 ZINC	SEDMG/KG	DRY WGT		7	34.8571	258.811	16.0876	68.0000	22.0000	79/08/02	80/06/26
01095 ANTIMONY	SB,DISS	UG/L		1	8.00000			8.00000	8.00000	78/06/20	78/06/20
01105 ALUMINUM	AL,TOT	UG/L		23	14270.0	.499E+09	22358.9	83000.0	130.000	79/04/27	82/05/18
01106 ALUMINUM	AL,DISS	UG/L		10	16.8000	182.400	13.5056	40.0000	.000000	79/04/27	81/07/23
01107 ALUMINUM	AL,SUSP	UG/L		9	2024.44	.131E+08	3620.53	11000.0	130.000	79/04/27	81/07/23
01108 AL MUD	DRY WGT	MG/KG-AL		7	3685.71	2314765	1521.44	5800.00	2100.00	79/08/02	80/06/26
01145 SELENIUM	SE,DISS	UG/L		7	1.00000	.333333	.577350	2.00000	.000000	78/06/20	81/04/28
01146 SELENIUM	SE,SUSP	UG/L		6	.666667	1.06667	1.03280	2.00000	.000000	79/04/27	81/04/28
01147 SELENIUM	SE,TOT	UG/L		18	1.66667	1.05883	1.02899	4.00000	.000000	79/04/27	82/05/18
			K	2	1.00000	.000000	.000000	1.00000	1.00000	82/04/13	82/04/29
			TOT	20	1.60000	.989476	.994724	4.00000	.000000	79/04/27	82/05/18
01148 SELENIUM	SEDMG/KG	DRY WGT		7	.428571	.285714	.534523	1.00000	.000000	79/08/02	80/06/26
01170 FE MUD	DRY WGT	MG/KG-FE		7	7100.00	.312E+08	5593.44	19000.0	3100.00	79/08/02	80/06/26
70301 DISS SOL	SUM	MG/L		28	840.714	79867.2	282.608	1300.00	212.000	78/03/01	81/08/10
70302 DISS SOL	TONS/DAY			26	1.64538	23.0055	4.79641	24.6000	.020000	78/03/01	81/08/10

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244464
40 23 28.0 107 16 15.0 2
HUBBERSON GULCH NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 790519 14050001000
0000 CLASS 00 CSN-RSP 0501115-0269571

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
70303 DISS SOL	TONS PER	ACRE-FT		29	1.14965	.143666	.379033	1.77000	.290000	78/03/01	81/08/10
70331 SUSP SED	PARTSIZE	%<.062MM		14	88.1927	20.4519	4.52238	96.0000	79.7000	80/04/16	82/05/04
71851 NITRATE	DISS-NO3	MG/L		1	.500000			.500000	.500000	81/05/28	81/05/28
71856 NITRITE	DISS-NO2	MG/L		1	.000000			.000000	.000000	81/05/28	81/05/28
71886 TOTAL P	AS PO4	MG/L		8	7.34375	16.1510	4.01883	12.0000	.950001	80/04/15	80/05/01
71890 MERCURY	HG,DISS	UG/L		5	.000000	.000000	.000000	.000000	.000000	80/02/20	81/04/28
			K	2	.100000-	.372E-08	.000000	.100000	.100000	78/06/20	79/04/27
			TOT	7	.028571	.002381	.048795	.100000	.000000	78/06/20	81/04/28
71895 MERCURY	HG,SUSP	UG/L		6	.100000	.028000	.167332	.400000	.000000	79/04/27	81/04/28
71900 MERCURY	HG,TOTAL	UG/L		19	.173684	.010936	.104574	.400000	.000000	80/02/20	82/05/18
			K	1	.100000			.100000	.100000	79/04/27	79/04/27
			TOT	20	.170000	.010632	.103110	.400000	.000000	79/04/27	82/05/18
71921 MERCURY	SEDMG/KG	DRY WGT		7	.027143	.000124	.011127	.040000	.010000	79/08/02	80/06/26
80154 SUSP SED	CONC	MG/L		34	1906.50	8116263	2848.91	10200.0	29.0000	79/04/27	82/05/18
80155 SUSP SED	DISCHARG	TONS/DAY		30	78.3046	30268.0	173.977	766.000	.000000	80/04/01	82/05/18
82068 POTAS-40	K-40,DIS	PC/LITER		6	2.86667	.134680	.366988	3.50000	2.40000	81/03/06	81/07/23

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

09244415

RETRIEVAL FOR DAVE RUITER

40 23 01.0 107 11 34.0 2
SAGE CREEK ABOVE SAGE CREEK RES, NR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 811107 14050001000
0000 CLASS 00 CSN-RSP 0623286-0271197

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		29	8.67241	42.0406	6.48387	20.0000	.000000	81/01/28	83/10/04
00025	BAROMTRC	PRESSURE	MM OF HG		8	586.375	6.28571	2.50713	590.000	583.000	83/02/22	83/10/04
00027	COLLECT	AGENCY	CODE		7	1028.00	.000000	.000000	1028.00	1028.00	83/03/29	83/10/04
00028	ANALYZE	AGENCY	CODE		28	80020.0	-.485E+04	.000000	80020.0	80020.0	81/01/28	83/10/04
00061	STREAM	FLOW,	INST-CFS		30	2.15699	10.5013	3.24058	12.0000	.000000	81/01/28	83/10/04
				J	1	.010000			.010000	.010000	82/09/29	82/09/29
				TOT	31	2.08774	10.3000	3.20936	12.0000	.000000	81/01/28	83/10/04
00065	STREAM	STAGE	FEET		5	1.31200	.618170	.786238	2.02000	.100000	83/05/02	83/09/13
00095	CNDUCTVY	AT 25C	MICROMHO		27	638.259	48301.5	219.776	1000.00	320.000	81/01/28	83/09/13
00300	DO		MG/L		22	8.69090	3.09803	1.76012	10.6000	3.50000	81/01/28	83/10/04
00400	PH		SU		24	8.16667	.063243	.251482	8.50000	7.50000	81/01/28	83/10/04
00403	LAB	PH	SU		22	8.18636	.050781	.225347	8.50000	7.60000	81/01/28	83/10/04
00608	NH3+NH4-	N DISS	MG/L		1	.050000			.050000	.050000	81/04/29	81/04/29
00631	NO2&NO3	N-DISS	MG/L		21	.244285	.015826	.125800	.530000	.090000	81/01/28	83/10/04
				K	2	.120000	.000800	.028284	.140000	.100000	82/05/18	83/05/25
				TOT	23	.233478	.015706	.125322	.530000	.090000	81/01/28	83/10/04
00660	ORTHOPO4	PO4	MG/L		13	.097692	.006069	.077905	.310000	.000000	81/01/28	83/02/22
00665	PHOS-TOT		MG/L P		4	.230000	.001533	.039157	.270000	.180000	82/04/28	82/05/04
00671	PHOS-DIS	ORTHO	MG/L P		20	.032000	.000438	.020926	.100000	.000000	81/01/28	83/10/04
				K	3	.010000	.000000	.000000	.010000	.010000	82/05/18	82/12/22
				TOT	23	.029130	.000436	.020870	.100000	.000000	81/01/28	83/10/04
00680	T ORG C	C	MG/L		9	15.8222	120.422	10.9737	32.0000	5.80000	81/04/15	83/09/13
00681	D ORG C	C	MG/L		9	7.67777	4.30453	2.07474	12.0000	5.70000	81/04/15	83/09/13
00900	TOT HARD	CACO3	MG/L		16	376.875	11209.6	105.875	540.000	140.000	81/01/28	83/02/22
00902	NC HARD	CACO3	MG/L		1	190.000			190.000	190.000	81/01/28	81/01/28
00915	CALCIUM	CA,DISS	MG/L		23	76.9565	455.318	21.3382	110.000	31.0000	81/01/28	83/10/04
00925	MGNSIUM	MG,DISS	MG/L		23	41.0869	200.357	14.1548	65.0000	16.0000	81/01/28	83/10/04
00930	SODIUM	NA,DISS	MG/L		23	16.3652	36.8098	6.06711	26.0000	5.20000	81/01/28	83/10/04
00931	SODIUM	ADSBTION	RATIO		16	.406250	.009958	.099792	.500000	.200000	81/01/28	83/02/22
00932	PERCENT	SODIUM	%		17	9.17647	1.02943	1.01461	11.0000	7.00000	81/01/28	83/03/29
00935	PTSSIUM	K,DISS	MG/L		23	4.16086	3.23069	1.79741	10.0000	1.80000	81/01/28	83/10/04
00940	CHLORIDE	TOTAL	MG/L		23	5.36086	4.23609	2.05818	10.0000	2.30000	81/01/28	83/10/04
00945	SULFATE	SO4-TOT	MG/L		23	151.870	4940.30	70.2873	260.000	42.0000	81/01/28	83/10/04
00950	FLUORIDE	F,DISS	MG/L		23	.186956	.001186	.034436	.200000	.100000	81/01/28	83/10/04
00955	SILICA	DISOLVED	MG/L		23	9.63043	3.24044	1.80012	13.0000	5.80000	81/01/28	83/10/04
01000	ARSENIC	AS,DISS	UG/L		5	1.00000	.000000	.000000	1.00000	1.00000	81/04/15	83/05/02
01001	ARSENIC	AS,SUSP	UG/L		5	2.20000	8.70000	2.94958	7.00000	.000000	81/04/15	83/05/02
01002	ARSENIC	AS,TOT	UG/L		11	2.90909	7.49092	2.73695	10.0000	1.00000	81/04/15	83/05/02
01020	BORON	B,DISS	UG/L		23	63.0435	3422.14	58.4990	320.000	20.0000	81/01/28	83/10/04
01025	CADMIUM	CD,DISS	UG/L		1	1.00000			1.00000	1.00000	83/05/02	83/05/02
				K	4	2.00000	1.33333	1.15470	3.00000	1.00000	81/04/15	82/11/17

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244415
40 23 01.0 107 11 34.0 2
SAGE CREEK ABOVE SAGE CREEK RES, NR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 811107 14050001000
0000 CLASS 00 CSN-RSP 0623286-0271197

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01025 CADMIUM	CD,DISS	UG/L	TOT	5	1.80000	1.20000	1.09545	3.00000	1.00000	81/04/15	83/05/02
01026 CADMIUM	CD,SUSP	UG/L		1	1.00000			1.00000	1.00000	83/05/02	83/05/02
01027 CADMIUM	CD,TOT	UG/L		3	1.00000	1.00000	1.00000	2.00000	.000000	81/04/15	83/05/02
			K	8	1.00000	.000000	.000000	1.00000	1.00000	82/04/13	82/11/17
			TOT	11	1.00000	.200000	.447214	2.00000	.000000	81/04/15	83/05/02
01034 CHROMIUM	CR,TOT	UG/L		7	23.7143	243.572	15.6068	54.0000	9.00000	81/05/27	82/05/04
01037 COBALT	CO,TOTAL	UG/L		7	3.00000	7.33333	2.70801	8.00000	.000000	81/05/27	82/05/04
01040 COPPER	CU,DISS	UG/L		4	3.75000	2.91667	1.70782	6.00000	2.00000	81/04/15	83/05/02
			K	1	1.00000			1.00000	1.00000	82/11/17	82/11/17
			TOT	5	3.20000	3.70000	1.92354	6.00000	1.00000	81/04/15	83/05/02
01041 COPPER	CU,SUSP	UG/L		4	16.0000	182.667	13.5154	35.0000	3.00000	81/04/15	83/05/02
01042 COPPER	CU,TOT	UG/L		11	34.7273	5206.82	72.1583	250.000	1.00000	81/04/15	83/05/02
01044 IRON	FE,SUSP	UG/L		21	12967.1	.170E+10	41324.6	190000	250.000	81/01/28	83/10/04
01045 IRON	FE,TOT	UG/L		28	11097.5	.127E+10	35761.5	190000	280.000	81/01/28	83/10/04
01046 IRON	FE,DISS	UG/L		21	53.3333	4247.53	65.1731	260.000	10.0000	81/01/28	83/10/04
			K	2	9.50000	.500000	.707107	10.0000	9.00000	81/06/24	82/05/18
			TOT	23	49.5217	4020.90	63.4105	260.000	9.00000	81/01/28	83/10/04
01049 LEAD	PB,DISS	UG/L		7	2.14286	1.14286	1.06905	4.00000	1.00000	81/04/15	83/05/02
			K	2	1.00000	.000000	.000000	1.00000	1.00000	82/05/18	83/09/13
			TOT	9	1.88889	1.11112	1.05410	4.00000	1.00000	81/04/15	83/09/13
01050 LEAD	PB,SUSP	UG/L		6	6.33333	45.8667	6.77249	15.0000	.000000	81/04/15	83/05/02
01051 LEAD	PB,TOT	UG/L		12	12.8333	613.969	24.7784	90.0000	1.00000	81/04/15	83/05/02
			K	3	1.00000	.000000	.000000	1.00000	1.00000	82/04/29	83/09/13
			TOT	15	10.4667	506.409	22.5035	90.0000	1.00000	81/04/15	83/09/13
01054 MANGNESE	MN,SUSP	UG/L		23	262.609	722009	849.711	4100.00	10.0000	81/01/28	83/10/04
01055 MANGNESE	MN	UG/L		28	312.857	580871	762.149	4100.00	30.0000	81/01/28	83/10/04
01056 MANGNESE	MN,DISS	UG/L		23	76.6956	5912.41	76.8922	330.000	15.0000	81/01/28	83/10/04
01060 MOLY	MO,DISS	UG/L		1	1.00000			1.00000	1.00000	82/04/14	82/04/14
			K	4	3.25000	20.2500	4.50000	10.0000	1.00000	81/04/15	83/05/02
			TOT	5	2.80000	16.2000	4.02492	10.0000	1.00000	81/04/15	83/05/02
01061 MOLY	MO,SUSP	UG/L		1	2.00000			2.00000	2.00000	82/04/14	82/04/14
01062 MOLY	MO,TOT	UG/L		3	1.66667	2.33334	1.52753	3.00000	.000000	81/04/15	82/04/14
			K	3	1.00000	.000000	.000000	1.00000	1.00000	82/05/18	83/05/02
			TOT	6	1.33333	1.06667	1.03280	3.00000	.000000	81/04/15	83/05/02
01065 NICKEL	NI,DISS	UG/L		5	3.60000	12.3000	3.50714	9.00000	.000000	81/04/15	83/05/02
01066 NICKEL	NI,SUSP	UG/L		4	9.50000	78.3333	8.85061	18.0000	.000000	81/04/15	83/05/02
01067 NICKEL	NI,TOTAL	UG/L		5	12.8000	49.7001	7.04983	22.0000	3.00000	81/04/15	83/05/02
			K	1	1.00000			1.00000	1.00000	82/11/17	82/11/17
			TOT	6	10.8333	62.9667	7.93516	22.0000	1.00000	81/04/15	83/05/02
01090 ZINC	ZN,DISS	UG/L		6	12.1667	97.7667	9.88771	32.0000	5.00000	81/07/23	83/09/13
			K	3	9.00000	27.0000	5.19615	12.0000	3.00000	81/04/15	82/05/18

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244415
40 23 01.0 107 11 34.0 2
SAGE CREEK ABOVE SAGE CREEK RES, NR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 811107 14050001000
0000 CLASS 00 CSN-RSP 0623286-0271197

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01090 ZINC	ZN,DISS	UG/L	TOT	9	11.1111	70.3611	8.38815	32.0000	3.00000	81/04/15	83/09/13
01091 ZINC	ZN,SUSP	UG/L		6	17.8333	504.167	22.4537	60.0000	.000000	81/07/23	83/09/13
01092 ZINC	ZN,TOT	UG/L		15	112.667	61921.0	248.839	1000.00	10.0000	81/04/15	83/09/13
01105 ALUMINUM	AL,TOT	UG/L		15	8367.33	.176E+09	13291.8	50000.0	100.000	81/04/15	83/09/13
01106 ALUMINUM	AL,DISS	UG/L		9	42.2222	2519.45	50.1941	170.000	10.0000	81/04/15	83/09/13
01107 ALUMINUM	AL,SUSP	UG/L		9	5533.33	.786E+08	8866.78	22000.0	90.0000	81/04/15	83/09/13
01145 SELENIUM	SE,DISS	UG/L		2	.500000	.500000	.707107	1.00000	.000000	81/04/15	83/05/02
			K	3	1.00000	.000000	.000000	1.00000	1.00000	82/04/14	82/11/17
			TOT	5	.800000	.200000	.447214	1.00000	.000000	81/04/15	83/05/02
01146 SELENIUM	SE,SUSP	UG/L		2	.000000	.000000	.000000	.000000	.000000	81/04/15	83/05/02
01147 SELENIUM	SE,TOT	UG/L		7	1.14286	.809525	.899736	3.00000	.000000	81/04/15	83/05/02
			K	4	1.00000	.000000	.000000	1.00000	1.00000	82/04/13	82/11/17
			TOT	11	1.09091	.490909	.700649	3.00000	.000000	81/04/15	83/05/02
70301 DISS SOL	SUM	MG/L		16	472.125	19070.3	138.095	675.000	190.000	81/01/28	83/02/22
70302 DISS SOL	TONS/DAY			14	1.03923	2.06187	1.43592	4.53000	.050000	81/01/28	82/12/22
70303 DISS SOL	TONS PER	ACRE-FT		16	.641875	.035310	.187909	.920000	.260000	81/01/28	83/02/22
70331 SUSP SED	PARTSIZE	%<.062MM		12	81.1332	181.108	13.4576	96.6000	48.0000	81/03/06	83/05/02
71846 AMMONIA	DISS-NH4	MG/L		1	.060000			.060000	.060000	81/04/29	81/04/29
71890 MERCURY	HG,DISS	UG/L		1	.000000			.000000	.000000	81/04/15	81/04/15
			K	4	.100000	.869E-08	.000093	.100000	.100000	82/04/14	83/05/02
			TOT	5	.080000	.002000	.044721	.100000	.000000	81/04/15	83/05/02
71895 MERCURY	HG,SUSP	UG/L		1	.100000			.100000	.100000	81/04/15	81/04/15
71900 MERCURY	HG,TOTAL	UG/L		9	.188889	.006111	.078174	.300000	.100000	81/04/15	83/05/02
			K	2	.100000	-.372E-08	.000000	.100000	.100000	82/05/18	82/11/17
			TOT	11	.172727	.006182	.078625	.300000	.100000	81/04/15	83/05/02
80154 SUSP SED	CONC	MG/L		29	619.584	4341906	2083.72	11300.0	18.0000	81/01/28	83/09/13
80155 SUSP SED	DISCHARG	TONS/DAY		20	4.07299	79.5399	8.91852	31.0000	.000000	81/01/28	82/09/29
82068 POTAS-40	K-40,DIS	PC/LITER		7	3.44286	.749535	.865757	5.20000	2.60000	81/03/06	81/07/23

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244410
40 29 18.0 107 09 33.0 2
YAMPA RIVER BELOW DIVERSION, NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264444-0269549

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BE	DATE	END DATE
00010	WATER	TEMP	CENT		118	7.27368	36.4928	6.04093	21.0000	.000000		75/06/09	83/09/06
00027	COLLECT	AGENCY	CODE		10	1028.00	.000000	.000000	1028.00	1028.00		82/10/07	83/09/06
00028	ANALYZE	AGENCY	CODE		49	63898.2	.103E+10	32165.3	80020.0	1028.00		78/07/18	83/09/06
00041	WEATHER	WMO CODE	4501		30	1.00000	.206897	.454859	3.00000	.000000		75/07/25	77/12/19
00060	STREAM	FLOW	CFS		6	1448.50	5781622	2404.50	5960.00	52.9999		76/12/16	78/05/30
00061	STREAM	FLOW,	INST-CFS		121	1268.05	3489408	1868.00	7300.00	38.8999		75/06/09	82/09/30
				J	4	727.500	910159	954.022	2150.00	170.000		78/01/19	81/05/07
00076	TURB	TRBIDMTR	HACH FTU	TOT	125	1250.76	3407991	1846.07	7300.00	38.8999		75/06/09	82/09/30
00095	CNDUCTVY	AT 25C	MICROMHO		29	6.72758	45.6414	6.75584	33.0000	.000000		75/06/25	77/10/14
00300	DO		MG/L		113	269.396	13416.7	115.830	600.000	50.0000		44/07/13	83/09/06
00310	BOD	5 DAY	MG/L		83	9.11199	2.00048	1.41438	12.6000	6.40000		75/07/25	82/09/30
00349	BOD	30 DAY	MG/L		14	2.52142	2.60107	1.61278	6.59999	.899999		75/09/23	77/10/14
00400	PH		SU		2	3.15000	4.80499	2.19203	4.69999	1.60000		75/09/23	75/09/24
00403	LAB	PH	SU		88	7.75902	.198410	.445433	8.60000	6.80000		44/07/13	82/09/30
00405	CO2		MG/L		18	8.02777	.080954	.284524	8.70000	7.60000		80/10/22	82/09/30
00410	T ALK	CACO3	MG/L		51	4.39607	18.2640	4.27364	21.0000	.500000		44/07/13	79/08/22
00440	HCO3 ION	HCO3	MG/L		68	85.8526	1104.99	33.2415	135.000	20.0000		44/07/13	80/09/03
00445	CO3 ION	CO3	MG/L		58	103.103	1623.29	40.2901	159.000	24.0000		44/07/13	79/08/22
00515	RESIDUE	DISS-105	C MG/L		52	.096154	.480769	.693375	5.00000	.000000		75/06/25	79/08/22
00530	RESIDUE	TOT NFLT	MG/L		1	39.0000			39.0000	39.0000		76/06/03	76/06/03
00556	OIL-GRSE	FREON-GR	MG/L		1	23.0000			23.0000	23.0000		76/06/03	76/06/03
00572	BIOMASS	PERPHYTN	G/SQ M		1	2.00000			2.00000	2.00000		82/09/30	82/09/30
00573	BIOMASS	PERPHYTN	DW G/M2		8	9.80100	244.621	15.6404	46.0000	.078000		75/10/08	79/09/25
00600	TOTAL N	N	MG/L		8	12.3635	301.041	17.3505	48.3000	.078000		75/10/08	79/09/25
00605	ORG N	N	MG/L		76	.860390	.510426	.714441	4.40000	.140000		75/06/25	82/05/12
00610	NH3+NH4-	N TOTAL	MG/L		80	.552495	.157084	.396338	3.10000	.090000		75/06/25	82/09/30
					65	.100000	.006175	.078581	.280000	.000000		75/06/25	82/09/30
				K	15	.010000	.498E-10	.000007	.010000	.010000		75/08/27	79/09/25
00623	KJELDL N	DISS	MG/L	TOT	80	.083125	.006252	.079071	.280000	.000000		75/06/25	82/09/30
00624	KJELDL N	SUSP	MG/L		1	.160000			.160000	.160000		75/09/04	75/09/04
00625	TOT KJEL	N	MG/L		1	.050000			.050000	.050000		75/09/04	75/09/04
00630	NO2&NO3	N-TOTAL	MG/L		81	.627897	.169468	.411665	3.20000	.140000		75/06/25	82/09/30
					68	.222647	.093637	.306002	1.30000	.000000		75/06/25	82/05/12
				K	13	.091538	.000764	.027643	.100000	.000000		75/07/25	82/09/30
00631	NO2&NO3	N-DISS	MG/L	TOT	81	.201605	.080881	.284396	1.30000	.000000		75/06/25	82/09/30
00650	T PO4	PO4	MG/L	K	1	.100000			.100000	.100000		75/09/04	75/09/04
00660	ORTHOPO4	PO4	MG/L		2	.305000	.048050	.219203	.460000	.150000		79/05/17	79/06/04
00665	PHOS-TOT		MG/L P		1	.030000			.030000	.030000		75/09/04	75/09/04
00666	PHOS-DIS		MG/L P		81	.068765	.002251	.047445	.240000	.010000		75/06/25	82/09/30
00671	PHOS-DIS	ORTHO	MG/L P		1	.030000			.030000	.030000		75/09/04	75/09/04
					1	.010000			.010000	.010000		75/09/04	75/09/04

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09244410
40 29 18.0 107 09 33.0 2
YAMPA RIVER BELOW DIVERSION, NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264444-0269549

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00680 T ORG C	C	MG/L			37	5.93513	6.65233	2.57921	13.0000	2.70000	75/09/29	80/10/22
00681 D ORG C	C	MG/L			46	5.28913	2.87965	1.69695	9.10000	1.90000	75/09/04	82/09/30
00689 S ORG C	C	MG/L			8	.575000	.113571	.337004	1.20000	.300000	75/09/04	82/09/30
00900 TOT HARD	CACO3	MG/L			84	102.690	1775.06	42.1315	230.000	24.0000	44/07/13	82/09/30
00902 NC HARD	CACO3	MG/L			70	16.3285	314.282	17.7280	80.0000	.000000	44/07/13	81/03/04
00915 CALCIUM	CA,DISS	MG/L			84	26.0214	92.6905	9.62759	51.0000	6.60000	44/07/13	82/09/30
00925 MGNSIUM	MG,DISS	MG/L			84	9.02138	20.7246	4.55243	26.0000	1.50000	44/07/13	82/09/30
00930 SODIUM	NA,DISS	MG/L			82	16.4853	79.6402	8.92413	36.0000	1.90000	44/07/13	82/09/30
00931 SODIUM	ADSBTION	RATIO			82	.685361	.078799	.280712	1.30000	.200000	44/07/13	82/09/30
00932 PERCENT	SODIUM	%			80	24.5500	29.1118	5.39554	42.0000	14.0000	44/07/13	82/09/30
00933 NA+K		MG/L			11	17.4273	86.0442	9.27600	33.0000	3.80000	47/03/18	80/02/06
00935 PTSSIUM	K,DISS	MG/L			80	2.06124	.484418	.696002	3.30000	.600000	44/07/13	82/09/30
00940 CHLORIDE	TOTAL	MG/L			85	7.35054	20.2025	4.49472	24.0000	.600000	44/07/13	82/09/30
00945 SULFATE	SO4-TOT	MG/L			85	39.2435	909.512	30.1581	180.000	3.00000	44/07/13	82/09/30
00950 FLUORIDE	F,DISS	MG/L			80	.207499	.015386	.124041	1.00000	.100000	75/06/25	82/09/30
00955 SILICA	DISOLVED	MG/L			81	9.14933	10.0027	3.16270	16.0000	1.50000	44/07/13	82/09/30
01000 ARSENIC	AS,DISS	UG/L			11	1.54545	1.07273	1.03573	4.00000	1.00000	75/09/29	80/09/03
				K	4	1.00000	.000000	.000000	1.00000	1.00000	76/01/12	79/06/04
				TOT	15	1.40000	.828574	.910260	4.00000	1.00000	75/09/29	80/09/03
01001 ARSENIC	AS,SUSP	UG/L			2	.500000	.500000	.707107	1.00000	.000000	80/05/13	80/09/03
				K	11	1.00000	.000000	.000000	1.00000	1.00000	75/09/29	79/09/25
				TOT	13	.923077	.076923	.277350	1.00000	.000000	75/09/29	80/09/03
01002 ARSENIC	AS,TOT	UG/L			15	1.26667	.209526	.457740	2.00000	1.00000	75/09/29	82/05/12
				K	3	1.00000	.000000	.000000	1.00000	1.00000	76/01/12	77/06/07
				TOT	18	1.22222	.183009	.427796	2.00000	1.00000	75/09/29	82/05/12
01010 BERYLIUM	BE,DISS	UG/L			2	7.50000	12.5000	3.53553	10.0000	5.00000	77/06/07	77/09/28
				K	13	7.92308	15.5769	3.94676	10.0000	1.00000	75/09/29	80/09/03
				TOT	15	7.86667	14.2667	3.77713	10.0000	1.00000	75/09/29	80/09/03
01011 BERYLIUM	BE,SUSP	UG/L			12	.833333	8.33333	2.88675	10.0000	.000000	75/09/29	79/09/25
01012 BERYLIUM	BE,TOT	UG/L			6	4.16667	24.1667	4.91596	10.0000	.000000	76/06/03	82/05/12
				K	12	10.0000	.000000	.000000	10.0000	10.0000	75/09/29	81/11/04
				TOT	18	8.05556	15.1144	3.88772	10.0000	.000000	75/09/29	82/05/12
01020 BORON	B,DISS	UG/L			75	46.1600	362.134	19.0298	120.000	2.00000	44/07/13	82/09/30
				K	5	18.0000	20.0000	4.47214	20.0000	10.0000	75/06/25	82/06/23
				TOT	80	44.4000	387.278	19.6794	120.000	2.00000	44/07/13	82/09/30
01025 CADMIUM	CD,DISS	UG/L			3	3.66667	4.33334	2.08167	6.00000	2.00000	76/01/12	78/05/30
				K	8	1.75000	.214286	.462910	2.00000	1.00000	75/09/29	80/09/03
				U	5	.000000	.000000	.000000	.000000	.000000	75/09/04	79/06/04
				TOT	16	1.56250	2.39583	1.54785	6.00000	.000000	75/09/04	80/09/03
01026 CADMIUM	CD,SUSP	UG/L			7	3.14286	45.1428	6.71884	18.0000	.000000	75/09/29	79/09/25
				K	6	9.50000	.300000	.547722	10.0000	9.00000	75/09/04	77/06/07

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RETRIEVAL FOR DAVE RUITER

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YAMPA RIVER BELOW DIVERSION, NEAR HAYDEN, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0264444-0269549

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01026 CADMIUM	CD,SUSP	UG/L	TOT	13	6.07692	33.5769	5.79456	18.0000	.000000	75/09/04	79/09/25
01027 CADMIUM	CD,TOT	UG/L		4	5.00000	100.000	10.0000	20.0000	.000000	77/09/28	81/05/05
			K	10	14.4000	81.3778	9.02096	20.0000	1.00000	75/09/04	82/05/12
			U	5	.000000	.000000	.000000	.000000	.000000	75/09/29	79/09/25
			TOT	19	8.63158	99.4678	9.97336	20.0000	.000000	75/09/04	82/05/12
01030 CHROMIUM	CR,DISS	UG/L		4	2.25000	6.91667	2.62996	5.00000	.000000	76/06/03	80/09/03
			K	3	20.0000	.000000	.000000	20.0000	20.0000	75/09/29	79/09/25
			U	8	.000000	.000000	.000000	.000000	.000000	76/01/12	79/06/04
			TOT	15	4.60000	65.9714	8.12228	20.0000	.000000	75/09/29	80/09/03
01031 CHROMIUM	CR,SUSP	UG/L		13	.000000	.000000	.000000	.000000	.000000	75/09/29	80/09/03
			K	1	9.99999			9.99999	9.99999	76/06/03	76/06/03
			TOT	14	.714285	7.14284	2.67261	9.99999	.000000	75/09/29	80/09/03
01034 CHROMIUM	CR,TOT	UG/L		5	9.00000	80.0001	8.94427	20.0000	.000000	78/05/30	82/05/12
			K	4	17.5000	25.0000	5.00000	20.0000	10.0000	75/09/29	81/11/04
			U	9	.000000	.000000	.000000	.000000	.000000	76/01/12	79/09/25
			TOT	18	6.38889	75.8987	8.71199	20.0000	.000000	75/09/29	82/05/12
01035 COBALT	CO,DISS	UG/L	U	1	.000000			.000000	.000000	75/09/04	75/09/04
01036 COBALT	CO,SUSP	UG/L	K	1	50.0000			50.0000	50.0000	75/09/04	75/09/04
01037 COBALT	CO,TOTAL	UG/L	K	1	100.000			100.000	100.000	75/09/04	75/09/04
01040 COPPER	CU,DISS	UG/L		12	5.00000	24.9091	4.99090	20.0000	2.00000	75/09/29	80/09/03
			K	3	2.00000	.000000	.000000	2.00000	2.00000	75/09/04	79/06/04
			U	1	.000000			.000000	.000000	76/12/16	76/12/16
			TOT	16	4.12500	20.9167	4.57347	20.0000	.000000	75/09/04	80/09/03
01041 COPPER	CU,SUSP	UG/L		10	6.00000	112.000	10.5830	35.0000	.000000	75/09/29	80/09/03
			K	6	7.83333	4.56665	2.13697	10.0000	5.00000	75/09/04	77/09/28
			TOT	16	6.68750	69.5624	8.34041	35.0000	.000000	75/09/04	80/09/03
01042 COPPER	CU,TOT	UG/L		10	8.10000	106.767	10.3328	37.0000	2.00000	76/06/03	82/05/12
			K	8	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	77/09/28
			U	1	.000000			.000000	.000000	75/09/29	75/09/29
			TOT	19	12.6842	97.7835	9.88855	37.0000	.000000	75/09/04	82/05/12
01044 IRON	FE,SUSP	UG/L		2	79.9999	9799.97	98.9948	150.000	9.99999	75/09/04	75/09/29
01045 IRON	FE,TOT	UG/L		10	365.000	43938.9	209.616	680.000	70.0000	75/09/04	77/09/28
01046 IRON	FE,DISS	UG/L		80	97.4247	3536.35	59.4672	310.000	20.0000	75/06/25	82/09/30
01049 LEAD	PB,DISS	UG/L		9	8.11111	97.3611	9.86717	30.0000	.000000	75/09/29	80/09/03
			K	2	2.00000	.000000	.000000	2.00000	2.00000	75/09/04	76/12/16
			U	5	.000000	.000000	.000000	.000000	.000000	76/06/03	79/09/25
			TOT	16	4.81250	67.2291	8.19934	30.0000	.000000	75/09/04	80/09/03
01050 LEAD	PB,SUSP	UG/L		8	41.7500	10103.4	100.515	290.000	.000000	76/06/03	80/09/03
			K	8	207.500	102642	320.377	999.998	70.0000	75/09/04	77/06/07
			TOT	16	124.625	59940.5	244.827	999.998	.000000	75/09/04	80/09/03
01051 LEAD	PB,TOT	UG/L		10	36.9000	8588.98	92.6767	300.000	1.00000	77/09/28	82/05/12

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01051 LEAD	PB,TOT	UG/L	K	8	200.000	.000000	.000000	200.000	200.000	75/09/04	77/06/07
			U	1	.000000			.000000	.000000	76/06/03	76/06/03
			TOT	19	103.632	11492.6	107.203	300.000	.000000	75/09/04	82/05/12
01054 MANGNESE	MN,SUSP	UG/L		15	19.3333	263.811	16.2422	50.0000	.000000	75/09/04	80/09/03
01055 MANGNESE	MN	UG/L		18	48.3333	285.297	16.8907	80.0000	20.0000	75/09/04	82/05/12
			K	1	10.0000			10.0000	10.0000	78/09/14	78/09/14
			TOT	19	46.3157	346.788	18.6222	80.0000	10.0000	75/09/04	82/05/12
01056 MANGNESE	MN,DISS	UG/L		13	25.3846	76.9248	8.77068	40.0000	10.0000	75/09/04	80/09/03
			K	3	10.0000	.000000	.000000	10.0000	10.0000	76/06/03	78/09/14
			TOT	16	22.5000	100.001	10.0000	40.0000	10.0000	75/09/04	80/09/03
01060 MOLY	MO,DISS	UG/L		3	1.00000	.000000	.000000	1.00000	1.00000	75/09/29	76/06/03
			K	6	1.00000	.000000	.000000	1.00000	1.00000	76/03/03	77/09/28
			TOT	9	1.00000	.000000	.000000	1.00000	1.00000	75/09/29	77/09/28
01061 MOLY	MO,SUSP	UG/L		9	.555555	.277778	.527046	1.00000	.000000	75/09/29	77/09/28
01062 MOLY	MO,TOT	UG/L		8	1.25000	.500000	.707107	2.00000	.000000	75/09/29	81/11/04
			K	4	1.00000	.000000	.000000	1.00000	1.00000	76/09/09	82/05/12
			TOT	12	1.16667	.333335	.577352	2.00000	.000000	75/09/29	82/05/12
01065 NICKEL	NI,DISS	UG/L		10	3.60000	9.82223	3.13404	12.0000	2.00000	75/09/04	80/09/03
			K	2	2.00000	.000000	.000000	2.00000	2.00000	76/03/03	76/12/16
			U	4	.000000	.000000	.000000	.000000	.000000	76/06/03	79/06/04
			TOT	16	2.50000	8.40000	2.89828	12.0000	.000000	75/09/04	80/09/03
01066 NICKEL	NI,SUSP	UG/L		7	3.14286	6.80953	2.60951	6.00000	.000000	76/06/03	80/09/03
			K	9	48.6666	2.00244	1.41508	50.0000	46.0000	75/09/04	77/09/28
			TOT	16	28.7500	547.799	23.4051	50.0000	.000000	75/09/04	80/09/03
01067 NICKEL	NI,TOTAL	UG/L		9	5.77778	24.9445	4.99444	18.0000	1.00000	78/05/30	82/05/12
			K	9	50.0000	.000000	.000000	50.0000	50.0000	75/09/04	77/09/28
			U	1	.000000			.000000	.000000	76/06/03	76/06/03
			TOT	19	26.4210	540.924	23.2578	50.0000	.000000	75/09/04	82/05/12
01085 VANADIUM	V,DISS	UG/L		13	1.29231	1.33077	1.15359	4.70000	.000000	75/09/04	80/09/03
01087 VANADIUM	V,TOT	UG/L		1	1.00000			1.00000	1.00000	78/05/30	78/05/30
01090 ZINC	ZN,DISS	UG/L		4	37.5000	158.333	12.5831	50.0000	20.0000	76/01/12	79/09/25
			K	8	15.7500	61.9286	7.86947	20.0000	3.00000	75/09/04	80/09/03
			U	3	.000000	.000000	.000000	.000000	.000000	76/03/03	79/06/04
			TOT	15	18.4000	245.686	15.6744	50.0000	.000000	75/09/04	80/09/03
01091 ZINC	ZN,SUSP	UG/L		13	14.6154	410.256	20.2548	70.0000	.000000	75/09/04	79/09/25
01092 ZINC	ZN,TOT	UG/L		10	48.0000	1484.45	38.5285	110.000	10.0000	76/01/12	82/05/12
			K	8	20.0000	.000000	.000000	20.0000	20.0000	75/09/04	79/06/04
			TOT	18	35.5555	990.851	31.4778	110.000	10.0000	75/09/04	82/05/12
01105 ALUMINUM	AL,TOT	UG/L		17	409.411	185344	430.516	1300.00	50.0000	75/09/29	82/05/12
			K	1	100.000			100.000	100.000	79/09/25	79/09/25
			TOT	18	392.222	179760	423.981	1300.00	50.0000	75/09/29	82/05/12

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01106 ALUMINUM	AL,DISS	UG/L		11	29.0908	349.094	18.6840	70.0000	10.00000	75/09/29	80/09/03
			K	4	100.000	.000000	.000000	100.000	100.000	76/09/09	79/09/25
			TOT	15	48.0000	1302.86	36.0952	100.000	10.00000	75/09/29	80/09/03
01107 ALUMINUM	AL,SUSP	UG/L		14	243.571	91055.3	301.754	1200.00	40.0000	75/09/29	80/09/03
01130 LITHIUM	LI,DISS	UG/L		7	27.1428	57.1432	7.55931	40.0000	20.0000	75/09/29	77/09/28
			K	2	10.0000	.000000	.000000	10.0000	10.0000	76/06/03	77/06/07
			TOT	9	23.3333	100.000	10.0000	40.0000	10.0000	75/09/29	77/09/28
01131 LITHIUM	LI,SUSP	UG/L		9	3.33333	25.0000	5.00000	10.0000	.000000	75/09/29	77/09/28
01132 LITHIUM	LI,TOT	UG/L		10	24.0000	71.1111	8.43274	30.0000	10.0000	75/09/29	82/05/12
			K	2	10.0000	.000000	.000000	10.0000	10.0000	76/06/03	77/06/07
			TOT	12	21.6667	87.8796	9.37441	30.0000	10.0000	75/09/29	82/05/12
01145 SELENIUM	SE,DISS	UG/L		2	.000000	.000000	.000000	.000000	.000000	80/05/13	80/09/03
			K	14	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	79/09/25
			TOT	16	.875000	.116667	.341565	1.00000	.000000	75/09/04	80/09/03
01146 SELENIUM	SE,SUSP	UG/L		15	.200000	.171428	.414039	1.00000	.000000	75/09/04	80/09/03
01147 SELENIUM	SE,TOT	UG/L		5	.600000	.300000	.547723	1.00000	.000000	75/09/29	81/05/05
			K	14	1.00000	.000000	.000000	1.00000	1.00000	75/09/04	82/05/12
			TOT	19	.894737	.099416	.315303	1.00000	.000000	75/09/04	82/05/12
01330 ODOR	ATMOSPH	SEVERITY		32	.000000	.000000	.000000	.000000	.000000	75/06/25	78/01/19
01345 FLOATING	DEBRIS	SEVERITY		1	2.00000			2.00000	2.00000	78/01/19	78/01/19
03515 BETA-D	AS CS137	PC/L		1	1.60000			1.60000	1.60000	76/06/03	76/06/03
03516 BETA-S	AS CS137	PC/L		1	1.70000			1.70000	1.70000	76/06/03	76/06/03
31616 FEC COLI	MFM-FCBR	/100ML		1	9.99999			9.99999	9.99999	75/09/23	75/09/23
32226 CHL B	PERIPHTN	MG/M2		2	.250000	.045000	.212132	.400000	.100000	75/10/08	75/11/04
32228 CHL A	PERIPHTN	MG/M2		2	9.45000	.605270	.777991	10.0000	8.90000	75/10/08	75/11/04
39250 NAPTHAL	ENES, PC	. UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39330 ALDRIN		TOT UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39340 GAMMABHC	LINDANE	TOT.UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39350 CHLRDANE	TECH&MET	TOT UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39360 ODD	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39365 DDE	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39370 DDT	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39380 DIELDRIN		TOTUG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39390 ENDRIN		TOT UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39398 ETHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39400 TOXAPHEN		TOTUG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39410 HEPTCHLR		TOTUG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39420 HPCHLREP		TOTUG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39516 PCBS	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39530 MALATHN	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39540 PARATHN	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03

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39570 DIAZINON	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39600 MPARATHN	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39730 2,4-D	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39740 2,4,5-T	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39760 SILVEX	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39786 TRITHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
39790 MTRTHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/03	76/06/03
60050 ALGAE	TOTAL	/ML		29	1822.41	1370842	1170.83	4200.00	140.000	75/06/25	77/10/14
70301 DISS SOL	SUM	MG/L		79	161.531	5446.97	73.8036	391.000	37.0000	44/07/13	82/09/30
70302 DISS SOL	TONS/DAY			79	268.049	109880	331.481	1500.00	20.3000	75/06/25	82/09/30
			J	1	88.3000			88.3000	88.3000	79/11/28	79/11/28
			TOT	80	265.802	108893	329.989	1500.00	20.3000	75/06/25	82/09/30
70303 DISS SOL	TONS PER	ACRE-FT		80	.220874	.009978	.099889	.530000	.050000	44/07/13	82/09/30
70331 SUSP SED	PARTSIZE	%<.062MM		2	63.4999	924.492	30.4055	84.9999	42.0000	75/06/09	79/04/20
70507 PHOS-T	ORTHO	MG/L P		3	.033333	.000633	.025166	.060000	.010000	75/09/23	81/05/05
70950 BIOMASS-	CHLRATIO	PERIUNIT		4	.200E+09	.159E+18	.400E+09	.800E+09	.000000	79/06/04	79/09/25
70957 CHLRPHYL	A-PERIPH	CHFLUG/L		6	3.75800	24.4145	4.94110	12.6000	.000000	78/10/03	79/09/25
70958 CHLRPHYL	B-PERIPH	CHFLUG/L		6	.533334	1.28639	1.13419	2.83000	.000000	78/10/03	79/09/25
71845 AMMONIA	TOT-NH4	MG/L		16	.069375	.010940	.104593	.330000	.000000	79/05/17	80/12/04
71850 NITRATE	TOT-NO3	MG/L		3	.699999	.190000	.435890	.999999	.200000	47/03/18	56/06/28
71886 TOTAL P	AS PO4	MG/L		31	.206451	.014230	.119291	.520000	.060000	79/05/17	82/09/30
71887 TOTAL N	AS NO3	MG/L		76	3.61959	6.55944	2.56114	15.0000	.620001	75/06/25	82/05/12
71890 MERCURY	HG,DISS	UG/L		4	.575000	.442500	.665207	1.20000	.000000	76/12/16	80/09/03
			K	12	.400000	.032727	.180907	.500000	.100000	75/09/04	79/09/25
			TOT	16	.443750	.118625	.344420	1.20000	.000000	75/09/04	80/09/03
71895 MERCURY	HG,SUSP	UG/L		15	.080000	.053143	.230527	.900000	.000000	75/09/04	80/09/03
71900 MERCURY	HG,TOTAL	UG/L		6	.550000	.659000	.811788	2.10000	.000000	76/12/16	81/11/04
			K	13	.376923	.036923	.192154	.500000	.100000	75/09/04	82/05/12
			TOT	19	.431579	.214503	.463145	2.10000	.000000	75/09/04	82/05/12
72000 LND SURF	DATUM	FT		1	6379.99			6379.99	6379.99	75/06/25	75/06/25
72015 TOP DPTH	OF SMPLE	FT		1	.000000			.000000	.000000	75/07/25	75/07/25
80030 ALPHA-D	AS U-NAT	UG/L		1	1.10000			1.10000	1.10000	76/06/03	76/06/03
80040 ALPHA-S	AS U-NAT	UG/L		1	2.60000			2.60000	2.60000	76/06/03	76/06/03
80050 BETA-D	AS SR-Y-	90, PC/L		1	1.30000			1.30000	1.30000	76/06/03	76/06/03
80060 BETA-S	AS SR-Y-	90, PC/L		1	1.50000			1.50000	1.50000	76/06/03	76/06/03
80154 SUSP SED	CONC	MG/L		87	48.7583	7577.83	87.0508	648.000	.000000	75/06/09	82/09/30
80155 SUSP SED	DISCHARG	TONS/DAY		85	280.933	369238	607.649	2650.00	.000000	75/06/09	82/09/30
82068 POTAS-40	K-40,DIS	PC/LITER		5	1.44000	.363002	.602497	2.40000	.900000	81/01/29	81/07/01

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243900
40 23 25.0 106 59 39.0 2
FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276126-0269535

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER	TEMP	CENT			98	8.88465	48.0474	6.93163	27.0000	.000000	75/09/02	84/02/27
00025 BAROMTRC	PRESSURE	MM OF HG			7	596.143	21.6667	4.65475	600.000	588.000	82/11/17	84/02/27
00027 COLLECT	AGENCY	CODE			10	1028.00	.000000	.000000	1028.00	1028.00	82/11/17	84/02/27
00028 ANALYZE	AGENCY	CODE			67	77632.1	.188E+09	13715.5	80020.0	28.0000	78/07/11	84/02/27
00041 WEATHER	WMO CODE	4501			9	.888888	.111111	.333334	1.00000	.000000	76/01/26	77/05/11
00060 STREAM	FLOW	CFS			4	2.10000	7.26165	2.69474	5.79999	.050000	76/01/26	76/05/07
00061 STREAM	FLOW,	INST-CFS			118	8.11998	204.119	14.2870	82.0000	.010000	76/01/26	84/02/27
				J	2	.055000	.004050	.063640	.100000	.010000	75/09/02	83/11/02
				TOT	120	7.98556	201.764	14.2044	82.0000	.010000	75/09/02	84/02/27
00065 STREAM	STAGE	FEET			5	1.94600	.157879	.397340	2.58000	1.58000	83/04/27	83/10/04
00095 CNDUCTVY	AT 25C	MICROMHO			63	1317.86	382371	618.362	3500.00	400.000	75/09/02	84/02/27
00300 DO		MG/L			39	9.99996	4.94655	2.22408	15.3000	5.00000	75/09/02	84/02/27
00400 PH		SU			54	7.92033	.119297	.345394	8.70000	7.20000	75/09/02	84/02/27
00403 LAB	PH	SU			22	8.09091	.041818	.204494	8.70000	7.80000	80/10/02	84/02/27
00405 CO2		MG/L			14	6.93571	37.0162	6.08410	24.0000	.900000	76/04/08	79/08/15
00410 T ALK	CACO3	MG/L			24	227.583	4902.08	70.0149	350.000	74.0000	76/04/08	80/08/27
00440 HCO3 ION	HCO3	MG/L			14	275.000	4042.54	63.5810	380.000	180.000	76/04/08	79/08/15
00445 CO3 ION	CO3	MG/L			14	.000000	.000000	.000000	.000000	.000000	76/04/08	79/08/15
00556 OIL-GRSE	FREON-GR	MG/L			1	.000000			.000000	.000000	79/03/23	79/03/23
00600 TOTAL N	N	MG/L			1	.509999			.509999	.509999	75/09/02	75/09/02
00602 DISS.	NITROGEN	MG/L N			13	5.24615	5.56439	2.35890	8.50000	1.90000	82/06/03	84/02/27
00607 ORG N	DISS-N	MG/L			5	1.42400	.428532	.654624	2.40000	.730001	82/06/03	83/02/11
00608 NH3+NH4-	N DISS	MG/L			14	.230000	.049784	.223124	.820000	.000000	81/01/20	84/02/27
00613 NO2-N	DISS	MG/L			11	.051818	.000736	.027136	.120000	.020000	81/05/27	83/10/04
				K	3	.016667	.000033	.005773	.020000	.010000	82/09/29	84/02/27
				TOT	14	.044286	.000796	.028206	.120000	.010000	81/05/27	84/02/27
00618 NO3-N	DISS	MG/L			11	3.96909	3.99175	1.99794	6.90000	.760000	81/05/27	83/10/04
00623 KJELDL N	DISS	MG/L			14	1.47928	.367549	.606258	2.50000	.210000	75/09/02	84/02/27
00624 KJELDL N	SUSP	MG/L			1	.220000			.220000	.220000	75/09/02	75/09/02
00625 TOT KJEL	N	MG/L			7	5.50428	38.4291	6.19913	15.0000	.430000	75/09/02	80/05/22
00630 NO2&NO3	N-TOTAL	MG/L			1	.080000			.080000	.080000	75/09/02	75/09/02
00631 NO2&NO3	N-DISS	MG/L			47	2.93978	11.6352	3.41103	17.0000	.010000	75/09/02	84/02/27
00660 ORTHOPO4	PO4	MG/L			36	.093055	.016668	.129103	.550000	.000000	76/04/08	83/02/11
00665 PHOS-TOT		MG/L P			7	.870000	.676867	.822719	2.10000	.090000	75/09/02	80/05/22
00666 PHOS-DIS		MG/L P			12	.026667	.000333	.018257	.060000	.010000	75/09/02	84/02/27
				K	2	.010000	.000000	.000000	.010000	.010000	82/07/20	82/09/29
				TOT	14	.024286	.000319	.017852	.060000	.010000	75/09/02	84/02/27
00668 PHOS MUD	DRY WGT	MG/KG-P			18	608.886	9601.23	97.9859	850.000	450.000	79/07/18	79/07/19
00671 PHOS-DIS	ORTHO	MG/L P			40	.031500	.001536	.039194	.180000	.000000	76/04/08	84/02/27
				K	5	.010000	.000000	.000000	.010000	.010000	78/06/19	83/11/02
				TOT	45	.029111	.001408	.037527	.180000	.000000	76/04/08	84/02/27

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FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276126-0269535

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00680 T ORG C	C	MG/L		12	16.6583	96.0226	9.79911	41.0000	3.80000	77/03/18	81/04/29
00681 D ORG C	C	MG/L		14	11.0643	22.7456	4.76923	23.0000	3.40000	75/09/02	81/04/29
00686 BM INORG	CARBON	GM/KG-C		18	.555555	.899083	.948200	3.20000	.000000	79/07/18	79/07/19
00687 BM ORG	CARBON	GM/KG-C		18	39.8943	270.295	16.4407	65.0000	5.10000	79/07/18	79/07/19
00689 S ORG C	C	MG/L		1	1.80000			1.80000	1.80000	75/09/02	75/09/02
00693 CARBON,B	M-IN+ORG	. GM/KG		18	40.4109	270.137	16.4358	65.0000	5.40000	79/07/18	79/07/19
00900 TOT HARD	CACO3	MG/L		38	715.262	209318	457.513	2300.00	180.000	76/04/08	83/02/11
00902 NC HARD	CACO3	MG/L		30	413.899	145345	381.241	1800.00	93.0000	76/04/08	81/02/25
00915 CALCIUM	CA,DISS	MG/L		46	157.978	7741.91	87.9881	480.000	45.0000	76/04/08	84/02/27
00925 MGNSIUM	MG,DISS	MG/L		47	80.8297	2489.46	49.8945	260.000	16.0000	76/04/08	84/02/27
00930 SODIUM	NA,DISS	MG/L		46	71.6956	1121.07	33.4823	190.000	16.0000	76/04/08	84/02/27
00931 SODIUM	ADSBTION	RATIO		38	1.13157	.105471	.324763	1.90000	.500000	76/04/08	83/02/11
00932 PERCENT	SODIUM	%		37	18.2973	10.3263	3.21345	25.0000	10.0000	76/04/08	83/02/11
00933 NA+K		MG/L		6	59.0000	268.006	16.3709	71.0000	27.0000	79/05/23	80/01/31
00935 PTSSIUM	K,DISS	MG/L		45	4.48888	2.77828	1.66682	8.40000	1.20000	76/04/08	84/02/27
00940 CHLORIDE	TOTAL	MG/L		46	11.4848	26.8523	5.18192	31.0000	5.40000	76/04/08	84/02/27
00945 SULFATE	SO4-TOT	MG/L		46	592.825	198025	445.000	2100.00	100.000	76/04/08	84/02/27
00950 FLUORIDE	F,DISS	MG/L		46	.239130	.004657	.068242	.500000	.100000	76/04/08	84/02/27
00955 SILICA	DISOLVED	MG/L		44	5.47499	6.46422	2.54248	10.00000	.200000	76/04/08	84/02/27
01000 ARSENIC	AS,DISS	UG/L		9	1.11111	.111112	.333335	2.00000	1.00000	76/06/04	81/04/29
01001 ARSENIC	AS,SUSP	UG/L		3	3.33333	24.3333	4.93288	9.00000	.000000	80/04/21	81/04/29
01002 ARSENIC	AS,TOT	UG/L		15	3.80000	16.1714	4.02137	16.0000	1.00000	79/03/23	82/04/14
01003 ARSENIC	SEDMG/KG	DRY WGT		19	5.26316	5.76024	2.40005	11.0000	2.00000	75/09/02	79/07/19
01020 BORON	B,DISS	UG/L		45	88.4444	1540.71	39.2519	250.000	30.0000	76/04/08	84/02/27
01025 CADMIUM	CD,DISS	UG/L		3	3.00000	4.00000	2.00000	5.00000	1.00000	77/03/18	80/04/21
			K	4	1.50000	.333333	.577350	2.00000	1.00000	79/04/09	81/04/29
			U	3	.000000	.000000	.000000	.000000	.000000	75/09/02	79/03/23
			TOT	10	1.50000	2.50000	1.58114	5.00000	.000000	75/09/02	81/04/29
01026 CADMIUM	CD,SUSP	UG/L		4	1.25000	3.58333	1.89297	4.00000	.000000	79/03/23	80/04/21
			K	1	9.99999			9.99999	9.99999	75/09/02	75/09/02
			TOT	5	3.00000	17.9999	4.24263	9.99999	.000000	75/09/02	80/04/21
01027 CADMIUM	CD,TOT	UG/L		13	.846154	1.97436	1.40512	5.00000	.000000	79/04/09	81/04/29
			K	5	5.00000	70.5000	8.39643	20.0000	1.00000	75/09/02	82/04/14
			U	1	.000000			.000000	.000000	79/08/15	79/08/15
			TOT	19	1.89474	20.6549	4.54477	20.0000	.000000	75/09/02	82/04/14
01028 CD MUD	DRY WGT	MG/KG-CD		18	.000000	.000000	.000000	.000000	.000000	79/07/18	79/07/19
01029 CHROMIUM	SEDMG/KG	DRY WGT		19	6.21052	6.50876	2.55123	13.0000	3.00000	75/09/02	79/07/19
01034 CHROMIUM	CR,TOT	UG/L		12	11.3333	87.5152	9.35495	25.0000	.000000	80/04/10	82/04/14
01035 COBALT	CO,DISS	UG/L	U	1	.000000			.000000	.000000	75/09/02	75/09/02
01036 COBALT	CO,SUSP	UG/L	K	1	49.9999			49.9999	49.9999	75/09/02	75/09/02
01037 COBALT	CO,TOTAL	UG/L		13	7.23077	41.6923	6.45696	24.0000	2.00000	80/04/10	82/04/14

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08107 COLORADO ROUTT

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112WRD 760220 14050001000
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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01037 COBALT	CO,TOTAL	UG/L	K	1	100.000			100.000	100.000	75/09/02	75/09/02
			TOT	14	13.8571	653.208	25.5579	100.000	2.00000	75/09/02	82/04/14
01038 CO MUD	DRY WGT	MG/KG-CO		18	5.05555	12.0556	3.47211	10.00000	.000000	79/07/18	79/07/19
01040 COPPER	CU,DISS	UG/L		7	6.14285	37.1428	6.09449	19.0000	2.00000	75/09/02	81/04/29
			K	1	2.00000			2.00000	2.00000	76/06/04	76/06/04
			U	1	.000000			.000000	.000000	79/03/23	79/03/23
			TOT	9	5.00000	33.2499	5.76627	19.0000	.000000	75/09/02	81/04/29
01041 COPPER	CU,SUSP	UG/L		5	2.80000	4.70001	2.16795	5.00000	.000000	79/03/23	81/04/29
			K	1	7.99999			7.99999	7.99999	75/09/02	75/09/02
			TOT	6	3.66666	8.26666	2.87518	7.99999	.000000	75/09/02	81/04/29
01042 COPPER	CU,TOT	UG/L		18	12.4444	66.7320	8.16897	31.0000	2.00000	79/03/23	82/04/14
			K	1	20.0000			20.0000	20.0000	75/09/02	75/09/02
			TOT	19	12.8421	66.0290	8.12583	31.0000	2.00000	75/09/02	82/04/14
01043 COPPER	SEDMG/KG	DRY WGT		19	10.3684	17.8011	4.21914	19.0000	3.00000	75/09/02	79/07/19
01044 IRON	FE,SUSP	UG/L		20	1627.00	5350170	2313.04	9200.00	90.0000	79/03/23	81/05/27
01045 IRON	FE,TOT	UG/L		36	7462.22	.211E+09	14526.9	68000.0	140.000	75/09/02	82/04/14
01046 IRON	FE,DISS	UG/L		27	54.4444	2656.40	51.5403	210.000	10.0000	76/06/04	81/05/27
			K	5	10.0000	.000000	.000000	10.0000	10.0000	75/09/02	81/04/29
			TOT	32	47.4999	2496.77	49.9676	210.000	10.0000	75/09/02	81/05/27
01049 LEAD	PB,DISS	UG/L		9	3.55556	9.77779	3.12695	9.00000	.000000	77/03/18	81/04/29
			U	5	.000000	.000000	.000000	.000000	.000000	75/09/02	79/08/15
			TOT	14	2.28571	9.14286	3.02372	9.00000	.000000	75/09/02	81/04/29
01050 LEAD	PB,SUSP	UG/L		10	10.3000	162.233	12.7371	40.0000	.000000	79/03/23	81/04/29
			K	1	99.9998			99.9998	99.9998	75/09/02	75/09/02
			TOT	11	18.4545	877.470	29.6221	99.9998	.000000	75/09/02	81/04/29
01051 LEAD	PB,TOT	UG/L		22	11.3636	193.576	13.9131	55.0000	.000000	79/03/23	82/04/14
			K	1	200.000			200.000	200.000	75/09/02	75/09/02
			TOT	23	19.5652	1731.89	41.6160	200.000	.000000	75/09/02	82/04/14
01052 LEAD	SEDMG/KG	DRY WGT		19	13.9473	461.717	21.4876	99.9998	.000000	75/09/02	79/07/19
01053 MN MUD	DRY WGT	MG/KG-MN		18	371.109	8740.41	93.4902	600.000	200.000	79/07/18	79/07/19
01054 MANGNESE	MN,SUSP	UG/L		25	48.2400	2127.44	46.1242	190.000	.000000	75/09/02	81/05/27
01055 MANGNESE	MN	UG/L		36	503.611	158561	398.197	1800.00	140.000	75/09/02	82/04/14
01056 MANGNESE	MN,DISS	UG/L		32	379.374	119632	345.879	1500.00	20.0000	75/09/02	81/05/27
			K	1	10.0000			10.0000	10.0000	78/07/11	78/07/11
			TOT	33	368.181	120028	346.451	1500.00	10.0000	75/09/02	81/05/27
01060 MOLY	MO,DISS	UG/L		1	.000000			.000000	.000000	80/04/21	80/04/21
			K	5	6.40000	24.3000	4.92950	10.0000	1.00000	79/03/23	81/04/29
			TOT	6	5.33333	26.2667	5.12510	10.0000	.000000	79/03/23	81/04/29
01061 MOLY	MO,SUSP	UG/L		4	1.00000	.666667	.816497	2.00000	.000000	79/03/23	80/04/21
01062 MOLY	MO,TOT	UG/L		14	6.57143	367.187	19.1621	73.0000	.000000	79/03/23	81/04/29
			K	1	1.00000			1.00000	1.00000	79/08/15	79/08/15

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01062 MOLY	MO,TOT	UG/L	TOT	15	6.20000	343.028	18.5210	73.0000	.000000	79/03/23	81/04/29
01065 NICKEL	NI,DISS	UG/L		6	3.83333	24.9667	4.99667	13.0000	.000000	77/03/18	81/04/29
			U	3	.000000	.000000	.000000	.000000	.000000	75/09/02	78/06/19
			TOT	9	2.55556	19.2778	4.39065	13.0000	.000000	75/09/02	81/04/29
01066 NICKEL	NI,SUSP	UG/L		5	7.20000	23.7000	4.86827	12.0000	.000000	79/03/23	81/04/29
			K	1	49.9999			49.9999	49.9999	75/09/02	75/09/02
			TOT	6	14.3333	324.266	18.0074	49.9999	.000000	75/09/02	81/04/29
01067 NICKEL	NI,TOTAL	UG/L		15	15.0667	170.638	13.0628	54.0000	3.00000	79/03/23	81/04/29
			K	1	49.9999			49.9999	49.9999	75/09/02	75/09/02
			TOT	16	17.2500	235.533	15.3471	54.0000	3.00000	75/09/02	81/04/29
01068 NICKEL	SEDMG/KG	DRY WGT		1	12.0000			12.0000	12.0000	75/09/02	75/09/02
01080 STRONTUM	SR,DISS	UG/L		13	2219.31	2034438	1426.34	5500.00	1.00000	82/06/03	84/02/27
01085 VANADIUM	V,DISS	UG/L		4	1.15000	2.95000	1.71756	3.70000	.000000	75/09/02	78/06/19
01090 ZINC	ZN,DISS	UG/L		4	17.2500	96.9171	9.84465	30.0000	9.00000	78/06/19	80/08/27
			K	8	11.5000	82.5714	9.08688	20.0000	3.00000	76/06/04	81/04/29
			U	1	.000000			.000000	.000000	75/09/02	75/09/02
			TOT	13	12.3846	93.5897	9.67418	30.0000	.000000	75/09/02	81/04/29
01091 ZINC	ZN,SUSP	UG/L		8	27.1250	551.839	23.4913	60.0000	.000000	75/09/02	80/12/22
01092 ZINC	ZN,TOT	UG/L		22	70.4545	6099.78	78.1011	330.000	.000000	75/09/02	82/04/14
			K	1	20.0000			20.0000	20.0000	79/08/15	79/08/15
			TOT	23	68.2608	5933.20	77.0273	330.000	.000000	75/09/02	82/04/14
01093 ZINC	SEDMG/KG	DRY WGT		18	35.9998	188.833	13.7416	66.0000	6.00000	79/07/18	79/07/19
01095 ANTIMONY	SB,DISS	UG/L		1	6.00000			6.00000	6.00000	78/06/19	78/06/19
			K	2	1.00000	.000000	.000000	1.00000	1.00000	76/06/04	77/03/18
			TOT	3	2.66667	8.33334	2.88675	6.00000	1.00000	76/06/04	78/06/19
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	3.00000			3.00000	3.00000	75/09/02	75/09/02
01105 ALUMINUM	AL,TOT	UG/L		22	5255.45	.482E+08	6944.85	26000.0	20.0000	79/03/23	82/04/14
01106 ALUMINUM	AL,DISS	UG/L		7	12.8571	57.1429	7.55929	20.0000	.000000	79/03/23	81/04/29
			K	3	100.000	.000000	.000000	100.000	100.000	79/04/09	79/08/15
			TOT	10	39.0000	1810.00	42.5441	100.000	.000000	79/03/23	81/04/29
01107 ALUMINUM	AL,SUSP	UG/L		10	2782.00	.383E+08	6195.97	20000.0	10.0000	79/03/23	81/04/29
01108 AL MUD	DRY WGT	MG/KG-AL		18	3100.00	841176	917.157	4500.00	1100.00	79/07/18	79/07/19
01145 SELENIUM	SE,DISS	UG/L		8	1.00000	.000000	.000000	1.00000	1.00000	77/03/18	81/04/29
			K	2	1.00000	.000000	.000000	1.00000	1.00000	75/09/02	76/06/04
			TOT	10	1.00000	.000000	.000000	1.00000	1.00000	75/09/02	81/04/29
01146 SELENIUM	SE,SUSP	UG/L		7	.428571	.285714	.534523	1.00000	.000000	75/09/02	81/04/29
01147 SELENIUM	SE,TOT	UG/L		15	1.46667	1.26667	1.12546	5.00000	.000000	79/03/23	82/04/14
			K	1	1.00000			1.00000	1.00000	75/09/02	75/09/02
			TOT	16	1.43750	1.19583	1.09354	5.00000	.000000	75/09/02	82/04/14
01148 SELENIUM	SEDMG/KG	DRY WGT		18	.000000	.000000	.000000	.000000	.000000	79/07/18	79/07/19
01170 FE MUD	DRY WGT	MG/KG-FE		19	7512.10	8909525	2984.88	15000.0	430.000	75/09/02	79/07/19

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243900
40 23 25.0 106 59 39.0 2
FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276126-0269535

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01330	ODOR	ATMOSPH	SEVERITY		5	.000000	.000000	.000000	.000000	.000000	76/04/08	77/05/11
70301	DISS SOL	SUM	MG/L		37	1050.86	494534	703.231	3180.00	16.0000	76/04/08	83/02/11
70302	DISS SOL	TONS/DAY			38	7.86157	160.015	12.6497	58.4000	.020000	76/04/08	83/02/11
70303	DISS SOL	TONS PER	ACRE-FT		37	1.42918	.913280	.955657	4.32000	.020000	76/04/08	83/02/11
70331	SUSP SED	PARTSIZE	%<.062MM		22	80.7725	266.946	16.3385	96.0000	47.0000	77/03/18	81/05/27
70332	SUSP SED	PARTSIZE	%<.125MM		1	97.0000			97.0000	97.0000	78/04/09	78/04/09
70333	SUSP SED	PARTSIZE	%<.250MM		1	99.0000			99.0000	99.0000	78/04/09	78/04/09
70334	SUSP SED	PARTSIZE	%<.500MM		1	100.0000			100.0000	100.0000	78/04/09	78/04/09
70337	SUSP SED	PARTSIZE	%<.002MM		1	78.0000			78.0000	78.0000	78/04/09	78/04/09
70338	SUSP SED	PARTSIZE	%<.004MM		1	79.0000			79.0000	79.0000	78/04/09	78/04/09
70340	SUSP SED	PARTSIZE	%<.016MM		1	84.0000			84.0000	84.0000	78/04/09	78/04/09
70342	SUSP SED	PARTSIZE	%<.062MM		7	76.8570	280.167	16.7382	95.0000	50.0000	80/04/10	80/05/28
71846	AMMONIA	DISS-NH4	MG/L		6	.146667	.018227	.135006	.400000	.000000	81/01/20	83/02/11
71851	NITRATE	DISS-NO3	MG/L		5	15.0400	99.5482	9.97738	26.0000	3.40000	81/05/27	83/02/11
71856	NITRITE	DISS-NO2	MG/L		5	.132000	.002570	.050695	.200000	.070000	81/05/27	83/02/11
71886	TOTAL P	AS PO4	MG/L		6	3.05166	6.25325	2.50065	6.40000	.610001	80/04/10	80/05/22
71887	TOTAL N	AS NO3	MG/L		1	2.30000			2.30000	2.30000	75/09/02	75/09/02
71890	MERCURY	HG,DISS	UG/L		3	.000000	.000000	.000000	.000000	.000000	80/04/21	81/04/29
				K	7	.271428	.045715	.213810	.500000	.100000	75/09/02	79/08/15
				TOT	10	.190000	.047667	.218327	.500000	.000000	75/09/02	81/04/29
71895	MERCURY	HG,SUSP	UG/L		7	.042857	.002857	.053452	.100000	.000000	75/09/02	81/04/29
71900	MERCURY	HG,TOTAL	UG/L		12	.083333	.005152	.071774	.200000	.000000	80/04/10	82/04/14
				K	4	.200000	.040000	.200000	.500000	.100000	75/09/02	79/08/15
				TOT	16	.112500	.014500	.120416	.500000	.000000	75/09/02	82/04/14
71921	MERCURY	SEDMG/KG	DRY WGT		19	.020000	.000033	.005774	.040000	.010000	75/09/02	79/07/19
80154	SUSP SED	CONC	MG/L		93	258.793	212813	461.317	3290.00	9.00000	76/01/26	83/09/12
80155	SUSP SED	DISCHARG	TONS/DAY		89	26.0776	10891.0	104.360	675.000	.000000	76/01/26	81/05/27
82068	POTAS-40	K-40,DIS	PC/LITER		5	3.06000	1.82800	1.35204	5.40000	1.90000	81/01/20	81/05/27
82398	SAMPLING	METHOD	(CODES)		1	40.0000			40.0000	40.0000	84/02/27	84/02/27

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243800
40 20 45.0 107 05 04.0 2
FOIDEL CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276125-0269530

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER	TEMP	CENT		48	10.1249	46.4951	6.81873	23.5000	.000000	75/09/03	83/07/26
00025 BAROMTRC	PRESSURE	MM OF HG		3	592.666	7.00000	2.64575	595.000	590.000	83/05/02	83/07/26
00027 COLLECT	AGENCY	CODE		6	1028.00	.000000	.000000	1028.00	1028.00	83/02/11	83/07/26
00028 ANALYZE	AGENCY	CODE		38	80020.0	-.531E+04	.000000	80020.0	80020.0	79/04/09	83/07/26
00041 WEATHER	WMO CODE	4501		7	.857143	.142857	.377965	1.00000	.000000	76/03/05	77/05/11
00060 STREAM	FLOW	CFS		2	.260000	.051200	.226274	.420000	.100000	76/03/05	77/03/18
00061 STREAM	FLOW,	INST-CFS		50	3.92220	118.860	10.9023	56.0000	.000000	76/03/05	83/07/26
			J	1	.010000			.010000	.010000	75/09/03	75/09/03
			TOT	51	3.84548	116.783	10.8066	56.0000	.000000	75/09/03	83/07/26
00065 STREAM	STAGE	FEET		4	1.98250	.157291	.396600	2.48000	1.59000	83/05/02	83/07/26
00095 CNDUCTVY	AT 25C	MICROMHO		49	959.938	157735	397.158	2350.00	210.000	75/09/03	83/07/26
00300 DO		MG/L		34	8.22941	6.50954	2.55138	13.8000	3.00000	75/09/03	83/07/26
00400 PH		SU		45	7.80219	.146673	.382979	8.60000	7.10000	75/09/03	83/06/16
00403 LAB	PH	SU		26	8.03846	.065654	.256231	8.50000	7.50000	80/10/02	83/07/26
00405 CO2		MG/L		11	16.4091	278.503	16.6884	51.0000	1.60000	76/03/05	79/04/09
00410 T ALK	CACO3	MG/L		15	231.067	4664.64	68.2982	330.000	130.000	76/03/05	80/06/24
00440 HCO3 ION	HCO3	MG/L		11	303.909	7122.20	84.3931	400.000	160.000	76/03/05	79/04/09
00445 CO3 ION	CO3	MG/L		12	.000000	.000000	.000000	.000000	.000000	76/03/05	79/06/29
00600 TOTAL N	N	MG/L		1	1.00000			1.00000	1.00000	75/09/03	75/09/03
00613 NO2-N	DISS	MG/L		1	.060000			.060000	.060000	81/05/27	81/05/27
00618 NO3-N	DISS	MG/L		1	2.10000			2.10000	2.10000	81/05/27	81/05/27
00623 KJELDL N	DISS	MG/L		1	.720001			.720001	.720001	75/09/03	75/09/03
00624 KJELDL N	SUSP	MG/L		1	.280000			.280000	.280000	75/09/03	75/09/03
00625 TOT KJEL	N	MG/L		7	1.74571	1.11463	1.05576	3.70000	.520000	75/09/03	80/05/20
00630 NO2&NO3	N-TOTAL	MG/L		1	.010000			.010000	.010000	75/09/03	75/09/03
00631 NO2&NO3	N-DISS	MG/L		36	3.28722	56.5851	7.52231	32.0000	.000000	75/09/03	83/06/08
			K	6	.100000	.819E-08	.000091	.100000	.100000	76/06/04	83/07/26
			TOT	42	2.83190	49.5785	7.04120	32.0000	.000000	75/09/03	83/07/26
00660 ORTHOPO4	PO4	MG/L		34	.091470	.012922	.113675	.370000	.000000	76/03/05	83/03/22
00665 PHOS-TOT		MG/L P		7	.588571	.156681	.395830	1.30000	.140000	75/09/03	80/05/20
00666 PHOS-DIS		MG/L P		1	.120000			.120000	.120000	75/09/03	75/09/03
00671 PHOS-DIS	ORTHO	MG/L P		36	.029722	.001266	.035576	.120000	.000000	76/03/05	83/07/26
			K	3	.010000	.000000	.000000	.010000	.010000	79/06/29	83/06/08
			TOT	39	.028205	.001194	.034555	.120000	.000000	76/03/05	83/07/26
00680 T ORG C	C	MG/L		13	12.2385	64.9343	8.05818	31.0000	5.00000	76/06/04	83/05/02
00681 D ORG C	C	MG/L		17	12.1000	48.9226	6.99447	32.0000	4.90000	75/09/03	83/05/02
00689 S ORG C	C	MG/L		1	1.90000			1.90000	1.90000	75/09/03	75/09/03
00900 TOT HARD	CACO3	MG/L		38	493.947	41921.9	204.748	1300.00	100.000	76/03/05	83/06/16
00902 NC HARD	CACO3	MG/L		19	161.000	5341.78	73.0875	320.000	84.0000	76/03/05	81/02/25
00915 CALCIUM	CA,DISS	MG/L		42	104.405	1746.55	41.7917	270.000	25.0000	76/03/05	83/07/26
00925 MGNSIUM	MG,DISS	MG/L		43	53.2558	624.196	24.9839	160.000	10.0000	76/03/05	83/07/26

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243800
40 20 45.0 107 05 04.0 2
FOIDEL CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276125-0269530

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00930	SODIUM	NA,DISS	MG/L		42	41.1119	481.585	21.9450	100.000	6.70000	76/03/05	83/07/26
00931	SODIUM	ADSBTION	RATIO		38	.821050	.141710	.376444	1.70000	.300000	76/03/05	83/06/16
00932	PERCENT	SODIUM	%		38	14.7105	13.9411	3.73378	24.0000	9.00000	76/03/05	83/06/16
00933	NA+K		MG/L		2	40.5000	264.500	16.2635	52.0000	29.0000	79/06/29	80/03/25
00935	PTSSIUM	K,DISS	MG/L		42	3.85952	1.52638	1.23547	8.80000	2.10000	76/03/05	83/07/26
00940	CHLORIDE	TOTAL	MG/L		42	9.80236	99.4120	9.97056	56.0000	1.10000	76/03/05	83/07/26
00945	SULFATE	SO4-TOT	MG/L		42	283.381	33155.5	182.086	1100.00	46.0000	76/03/05	83/07/26
00950	FLUORIDE	F,DISS	MG/L		42	.238095	.003391	.058236	.400000	.200000	76/03/05	83/07/26
00955	SILICA	DISOLVED	MG/L		42	8.07853	7.99408	2.82738	14.0000	2.50000	76/03/05	83/07/26
01000	ARSENIC	AS,DISS	UG/L		10	1.20000	.177778	.421638	2.00000	1.00000	76/03/05	83/05/02
				K	1	1.00000			1.00000	1.00000	82/11/17	82/11/17
				TOT	11	1.18182	.163637	.404520	2.00000	1.00000	76/03/05	83/05/02
01001	ARSENIC	AS,SUSP	UG/L		6	.833333	2.56667	1.60208	4.00000	.000000	80/04/21	83/05/02
01002	ARSENIC	AS,TOT	UG/L		14	2.21428	2.18132	1.47693	5.00000	1.00000	79/04/09	83/05/02
01003	ARSENIC	SEDMG/KG	DRY WGT		1	10.0000			10.0000	10.0000	75/09/03	75/09/03
01020	BORON	B,DISS	UG/L		40	82.2500	8387.11	91.5812	630.000	20.0000	76/03/05	83/07/26
01025	CADMIUM	CD,DISS	UG/L		2	2.00000	.000000	.000000	2.00000	2.00000	78/06/19	80/04/21
				K	8	1.75000	.785714	.886405	3.00000	1.00000	76/03/05	83/05/02
				U	3	.000000	.000000	.000000	.000000	.000000	75/09/03	79/04/09
				TOT	13	1.38461	1.08975	1.04391	3.00000	.000000	75/09/03	83/05/02
01026	CADMIUM	CD,SUSP	UG/L		2	1.50000	4.50000	2.12132	3.00000	.000000	79/04/09	80/04/21
				K	1	10.0000			10.0000	10.0000	75/09/03	75/09/03
				TOT	3	4.33333	26.3333	5.13160	10.0000	.000000	75/09/03	80/04/21
01027	CADMIUM	CD,TOT	UG/L		9	.888889	.861111	.927961	3.00000	.000000	79/04/09	81/04/29
				K	6	4.16667	60.1666	7.75672	20.0000	1.00000	75/09/03	83/05/02
				TOT	15	2.20000	24.7428	4.97422	20.0000	.000000	75/09/03	83/05/02
01029	CHROMIUM	SEDMG/KG	DRY WGT		1	10.0000			10.0000	10.0000	75/09/03	75/09/03
01034	CHROMIUM	CR,TOT	UG/L		8	6.62500	43.9821	6.63190	16.0000	.000000	80/04/10	82/04/14
01035	COBALT	CO,DISS	UG/L		1	2.00000			2.00000	2.00000	75/09/03	75/09/03
01036	COBALT	CO,SUSP	UG/L	K	1	48.0000			48.0000	48.0000	75/09/03	75/09/03
01037	COBALT	CO,TOTAL	UG/L		8	5.00000	12.2857	3.50510	10.0000	.000000	80/04/10	82/04/14
				K	1	100.000			100.000	100.000	75/09/03	75/09/03
				TOT	9	15.5556	1013.53	31.8359	100.000	.000000	75/09/03	82/04/14
01040	COPPER	CU,DISS	UG/L		12	3.50000	3.36364	1.83402	8.00000	1.00000	75/09/03	83/05/02
				U	1	.000000			.000000	.000000	76/06/04	76/06/04
				TOT	13	3.23077	4.02565	2.00640	8.00000	.000000	75/09/03	83/05/02
01041	COPPER	CU,SUSP	UG/L		8	5.25000	41.0714	6.40870	19.0000	.000000	79/04/09	83/05/02
				K	1	8.00000			8.00000	8.00000	75/09/03	75/09/03
				TOT	9	5.55556	36.7778	6.06447	19.0000	.000000	75/09/03	83/05/02
01042	COPPER	CU,TOT	UG/L		14	8.42857	36.7253	6.06014	24.0000	2.00000	79/04/09	83/05/02
				K	1	20.0000			20.0000	20.0000	75/09/03	75/09/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243800
40 20 45.0 107 05 04.0 2
FOIDEL CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276125-0269530

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01042	COPPER	CU,TOT	UG/L	TOT	15	9.20000	43.0286	6.55962	24.0000	2.00000	75/09/03	83/05/02
01043	COPPER	SEDMG/KG	DRY WGT		1	19.0000			19.0000	19.0000	75/09/03	75/09/03
01044	IRON	FE,SUSP	UG/L		30	2677.00	.416E+08	6453.00	33000.0	270.000	75/09/03	83/07/26
01045	IRON	FE,TOT	UG/L		38	3583.16	.446E+08	6680.72	33000.0	290.000	75/09/03	83/07/26
01046	IRON	FE,DISS	UG/L		40	64.0500	5040.71	70.9980	320.000	10.0000	75/09/03	83/07/26
				K	2	9.50000	.500000	.707107	10.0000	9.00000	80/06/24	82/05/18
				TOT	42	61.4524	4933.08	70.2359	320.000	9.00000	75/09/03	83/07/26
01049	LEAD	PB,DISS	UG/L		13	3.23077	10.5256	3.24433	11.0000	.000000	76/03/05	83/05/02
				K	2	1.50000	.500000	.707107	2.00000	1.00000	77/03/18	83/03/22
				U	2	.000000	.000000	.000000	.000000	.000000	75/09/03	76/06/04
				TOT	17	2.64706	9.24265	3.04017	11.0000	.000000	75/09/03	83/05/02
01050	LEAD	PB,SUSP	UG/L		11	5.36364	88.0546	9.38374	25.0000	.000000	79/04/09	83/05/02
				K	1	100.000			100.000	100.000	75/09/03	75/09/03
				TOT	12	13.2500	826.386	28.7469	100.000	.000000	75/09/03	83/05/02
01051	LEAD	PB,TOT	UG/L		16	8.31250	87.5625	9.35748	29.0000	1.00000	79/04/09	83/05/02
				K	3	67.3333	13200.3	114.893	200.000	1.00000	75/09/03	83/03/22
				TOT	19	17.6316	2028.58	45.0397	200.000	1.00000	75/09/03	83/05/02
01052	LEAD	SEDMG/KG	DRY WGT		1	150.000			150.000	150.000	75/09/03	75/09/03
01054	MANGNESE	MN,SUSP	UG/L		31	80.3226	18909.9	137.513	600.000	.000000	75/09/03	83/07/26
01055	MANGNESE	MN	UG/L		37	361.351	141507	376.174	1800.00	60.0000	75/09/03	83/07/26
				U	1	.000000			.000000	.000000	81/04/29	81/04/29
				TOT	38	351.842	141118	375.657	1800.00	.000000	75/09/03	83/07/26
01056	MANGNESE	MN,DISS	UG/L		40	301.750	120094	346.546	1500.00	10.0000	75/09/03	83/07/26
				K	1	10.0000			10.0000	10.0000	78/04/18	78/04/18
				TOT	41	294.634	119168	345.207	1500.00	10.0000	75/09/03	83/07/26
01060	MOLY	MO,DISS	UG/L		3	1.33333	1.33333	1.15470	2.00000	.000000	80/04/21	82/05/18
				K	5	4.60000	24.3000	4.92951	10.0000	1.00000	79/04/09	83/05/02
				TOT	8	3.37500	17.1250	4.13824	10.0000	.000000	79/04/09	83/05/02
01061	MOLY	MO,SUSP	UG/L		4	.500000	.333333	.577350	1.00000	.000000	79/04/09	82/05/18
01062	MOLY	MO,TOT	UG/L		10	8.60000	561.600	23.6981	76.0000	.000000	80/04/10	82/05/18
				K	3	1.00000	.000000	.000000	1.00000	1.00000	79/04/09	83/05/02
				TOT	13	6.84615	432.308	20.7920	76.0000	.000000	79/04/09	83/05/02
01065	NICKEL	NI,DISS	UG/L		9	4.88889	15.3611	3.91933	13.0000	.000000	75/09/03	83/05/02
				K	1	2.00000			2.00000	2.00000	79/04/09	79/04/09
				U	2	.000000	.000000	.000000	.000000	.000000	76/06/04	78/06/19
				TOT	12	3.83333	15.0606	3.88080	13.0000	.000000	75/09/03	83/05/02
01066	NICKEL	NI,SUSP	UG/L		7	1.57143	5.95238	2.43975	6.00000	.000000	79/04/09	83/05/02
				K	1	47.0000			47.0000	47.0000	75/09/03	75/09/03
				TOT	8	7.25000	263.071	16.2195	47.0000	.000000	75/09/03	83/05/02
01067	NICKEL	NI,TOTAL	UG/L		13	9.53846	68.7693	8.29272	28.0000	2.00000	79/04/09	83/05/02
				K	1	50.0000			50.0000	50.0000	75/09/03	75/09/03

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243800
40 20 45.0 107 05 04.0 2
FOIDEL CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276125-0269530

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01067 NICKEL	NI,TOTAL	UG/L	TOT	14	12.4286	180.418	13.4320	50.0000	2.00000	75/09/03	83/05/02
01068 NICKEL	SEDMG/KG	DRY WGT		1	12.0000			12.0000	12.0000	75/09/0[illegible]	75/09/03
01085 VANADIUM	V,DISS	UG/L		5	.720000	.747000	.864292	2.10000	.000000	75/09/0[illegible]	78/06/19
01090 ZINC	ZN,DISS	UG/L		11	19.5454	769.673	27.7430	100.000	3.00000	77/03/18	83/05/02
			K	6	17.3333	17.0669	4.13121	20.0000	12.0000	75/09/03	82/05/18
			TOT	17	18.7647	487.567	22.0809	100.000	3.00000	75/09/03	83/05/02
01091 ZINC	ZN,SUSP	UG/L		11	23.4545	1568.87	39.6090	140.000	.000000	75/09/03	83/05/02
01092 ZINC	ZN,TOT	UG/L		19	46.3158	2835.67	53.2510	240.000	10.0000	75/09/03	83/05/02
01095 ANTIMONY	SB,DISS	UG/L	K	3	1.00000	.000000	.000000	1.00000	1.00000	76/03/05	78/06/19
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	3.00000			3.00000	3.00000	75/09/03	75/09/03
01105 ALUMINUM	AL,TOT	UG/L		18	2286.11	9072413	3012.04	9300.00	70.0000	79/04/09	83/05/02
01106 ALUMINUM	AL,DISS	UG/L		9	38.8889	4736.11	68.8194	220.000	.000000	80/04/21	83/05/02
			K	3	40.0000	2700.00	51.9615	100.000	10.0000	79/04/09	82/09/29
			TOT	12	39.1667	3935.61	62.7344	220.000	.000000	79/04/09	83/05/02
01107 ALUMINUM	AL,SUSP	UG/L		10	1633.00	8127712	2850.91	9300.00	60.0000	79/04/09	83/05/02
01145 SELENIUM	SE,DISS	UG/L		8	1.00000	.857143	.925820	2.00000	.000000	77/03/18	83/05/02
			K	5	1.00000	.000000	.000000	1.00000	1.00000	75/09/03	82/11/17
			TOT	13	1.00000	.500000	.707107	2.00000	.000000	75/09/03	83/05/02
01146 SELENIUM	SE,SUSP	UG/L		8	.000000	.000000	.000000	.000000	.000000	75/09/03	83/05/02
01147 SELENIUM	SE,TOT	UG/L		13	.923077	.410256	.640513	2.00000	.000000	79/04/09	83/05/02
			K	2	1.00000	.000000	.000000	1.00000	1.00000	75/09/03	82/11/17
			TOT	15	.933333	.352381	.593617	2.00000	.000000	75/09/03	83/05/02
01170 FE MUD	DRY WGT	MG/KG-FE		1	16000.0			16000.0	16000.0	75/09/03	75/09/03
01330 ODOR	ATMOSPH	SEVERITY		7	.000000	.000000	.000000	.000000	.000000	76/03/05	77/05/11
70301 DISS SOL	SUM	MG/L		37	692.108	109600	331.060	1920.00	10.0000	76/03/05	83/06/16
70302 DISS SOL	TONS/DAY			36	1.68638	7.29735	2.70136	11.4000	.020000	76/03/05	83/03/22
70303 DISS SOL	TONS PER	ACRE-FT		37	.934322	.205462	.453279	2.61000	.010000	76/03/05	83/03/22
70331 SUSP.SED	PARTSIZE	%<.062MM		9	92.2220	64.2266	8.01415	99.0000	77.0000	78/04/18	83/05/02
71851 NITRATE	DISS-NO3	MG/L		1	9.50000			9.50000	9.50000	81/05/27	81/05/27
71856 NITRITE	DISS-NO2	MG/L		1	.200000			.200000	.200000	81/05/27	81/05/27
71886 TOTAL P	AS PO4	MG/L		6	1.87333	1.74054	1.31930	4.00000	.430000	80/04/10	80/05/20
71887 TOTAL N	AS NO3	MG/L		1	4.50000			4.50000	4.50000	75/09/03	75/09/03
71890 MERCURY	HG,DISS	UG/L		3	.000000	.000000	.000000	.000000	.000000	80/04/21	81/04/29
			K	9	.233333	.040000	.200001	.500000	.100000	75/09/03	83/05/02
			TOT	12	.175000	.040227	.200568	.500000	.000000	75/09/03	83/05/02
71895 MERCURY	HG,SUSP	UG/L		5	.120000	.007000	.083666	.200000	.000000	75/09/03	81/04/29
71900 MERCURY	HG,TOTAL	UG/L		10	.100000	.002222	.047141	.200000	.000000	80/04/10	82/11/17
			K	4	.200000	.040000	.200000	.500000	.100000	75/09/03	83/05/02
			TOT	14	.128571	.012967	.113873	.500000	.000000	75/09/03	83/05/02
71921 MERCURY	SEDMG/KG	DRY WGT		1	.030000			.030000	.030000	75/09/03	75/09/03
80154 SUSP SED	CONC	MG/L		48	169.706	85488.0	292.383	1660.00	6.99999	76/03/05	83/07/26

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RETRIEVAL FOR DAVE RUITER

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40 20 45.0 107 05 04.0 2
FOIDEL CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276125-0269530

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
80155 SUSP SED	DISCHARG	TONS/DAY		40	10.9697	2119.93	46.0427	251.000	.000000	76/03/05	82/09/29
			K	1	.010000			.010000	.010000	78/06/19	78/06/19
			TOT	41	10.7024	2069.86	45.4957	251.000	.000000	76/03/05	82/09/29
82068 POTAS-40	K-40,DIS	PC/LITER		6	2.98333	.949686	.974518	4.30000	1.60000	80/05/28	81/07/01

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RETRIEVAL FOR DAVE RUITER

09243700
40 23 08.0 106 59 33.0 2
MIDDLE CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276124-0269521

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010 WATER	TEMP	CENT		73	8.97257	50.5548	7.11019	22.0000	.000000	75/09/02	84/02/27
00025 BAROMTRC	PRESSURE	MM OF HG		7	597.857	10.5000	3.24037	601.000	593.000	82/11/17	84/02/27
00027 COLLECT	AGENCY	CODE		10	1028.00	.000000	.000000	1028.00	1028.00	82/11/17	84/02/27
00028 ANALYZE	AGENCY	CODE		46	78281.0	.139E+09	11794.3	80020.0	28.0000	78/07/11	84/02/27
00041 WEATHER	WMO CODE	4501		19	.894737	.099416	.315303	1.00000	.000000	75/10/22	78/01/24
00060 STREAM	FLOW	CFS		4	.712499	.270624	.520215	1.30000	.250000	76/11/22	77/03/29
00061 STREAM	FLOW,	INST-CFS		74	7.01047	163.913	12.8029	48.0000	.010000	75/10/22	84/02/27
			J	1	.040000			.040000	.040000	75/09/02	75/09/02
			TOT	75	6.91753	162.346	12.7415	48.0000	.010000	75/09/02	84/02/27
00065 STREAM	STAGE	FEET		5	1.44800	.250172	.500172	2.12000	.970000	83/04/27	83/10/04
00085 ODOR	THRSH NO	RM. TEMP		1	.000000			.000000	.000000	76/05/07	76/05/07
00095 CNDUCTVY	AT 25C	MICROMHO		71	628.294	22707.4	150.690	890.000	310.000	75/09/02	84/02/27
00300 DO		MG/L		47	9.67230	3.07405	1.75330	13.2000	6.39999	75/09/02	84/02/27
00400 PH		SU		67	8.06711	.118726	.344567	8.80000	7.20000	75/09/02	84/02/27
00403 LAB	PH	SU		24	8.25000	.018257	.135120	8.60000	7.90000	80/10/02	84/02/27
00405 CO2		MG/L		31	5.84516	41.1319	6.41342	26.0000	.900000	75/10/22	79/08/15
00410 T ALK	CACO3	MG/L		39	220.102	3046.95	55.1992	305.000	110.000	75/10/22	80/08/[illegible]
00440 HCO3 ION	HCO3	MG/L		31	269.193	4587.73	67.7328	372.000	140.000	75/10/22	79/08/15
00445 CO3 ION	CO3	MG/L		31	.548387	2.72258	1.65002	7.00000	.000000	75/10/22	79/08/15
00600 TOTAL N	N	MG/L		1	.590000			.590000	.590000	75/09/02	75/09/02
00602 DISS.	NITROGEN	MG/L N		8	1.07125	.325470	.570499	2.30000	.550000	82/11/17	84/02/27
00607 ORG N	DISS-N	MG/L		5	.624000	.045280	.212791	.940001	.390000	82/06/03	83/03/22
00608 NH3+NH4-	N DISS	MG/L		13	.124615	.012994	.113990	.400000	.000000	81/01/20	84/02/27
			K	1	.060000			.060000	.060000	82/07/20	82/07/20
			TOT	14	.120000	.012292	.110871	.400000	.000000	81/01/20	84/02/27
00613 NO2-N	DISS	MG/L		1	.000000			.000000	.000000	81/05/27	81/05/27
			K	13	.019231	.000008	.002774	.020000	.010000	82/06/03	84/02/27
			TOT	14	.017857	.000034	.005789	.020000	.000000	81/05/27	84/02/27
00618 NO3-N	DISS	MG/L		1	.040000			.040000	.040000	81/05/27	81/05/27
00623 KJELDL N	DISS	MG/L		14	.697857	.066065	.257030	1.30000	.300000	75/09/02	84/02/27
00624 KJELDL N	SUSP	MG/L		1	.200000			.200000	.200000	75/09/02	75/09/02
00625 TOT KJEL	N	MG/L		7	3.01000	11.3157	3.36389	10.0000	.570000	75/09/02	80/05/28
00630 NO2&NO3	N-TOTAL	MG/L		1	.020000			.020000	.020000	75/09/02	75/09/02
00631 NO2&NO3	N-DISS	MG/L		52	.287884	.233608	.483330	2.30000	.000000	75/11/05	84/02/27
			K	10	.100000	.000000	.000000	.100000	.100000	75/09/02	83/11/02
			TOT	62	.257580	.200165	.447398	2.30000	.000000	75/09/02	84/02/27
00660 ORTHOPO4	PO4	MG/L		53	.101132	.017283	.131466	.580000	.000000	75/10/22	83/03/22
00665 PHOS-TOT		MG/L P		9	.611444	.650079	.806275	2.50000	.080000	75/09/02	82/05/18
00666 PHOS-DIS		MG/L P		13	.030769	.000491	.022159	.080000	.010000	75/09/02	84/02/27
			K	1	.010000			.010000	.010000	82/09/29	82/09/29
			TOT	14	.029286	.000484	.022001	.080000	.010000	75/09/02	84/02/27

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

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MIDDLE CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

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PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00668	PHOS MUD	DRY WGT	MG/KG-P		1	470.000			470.000	470.000	79/07/19	79/07/19
00671	PHOS-DIS	ORTHO	MG/L P		58	.033103	.001653	.040661	.190000	.000000	75/11/05	84/02/27
				K	3	.010000	.000000	.000000	.010000	.010000	75/10/22	82/11/17
				TOT	61	.031967	.001596	.039951	.190000	.000000	75/10/22	84/02/27
00680	T ORG C	C	MG/L		18	10.6333	24.8129	4.98126	23.0000	4.80000	75/10/22	81/07/29
00681	D ORG C	C	MG/L		19	7.88421	9.51474	3.08460	14.0000	.600000	75/09/02	81/07/29
00686	BM INORG	CARBON	GM/KG-C		1	.200000			.200000	.200000	79/07/19	79/07/19
00687	BM ORG	CARBON	GM/KG-C		1	4.90000			4.90000	4.90000	79/07/19	79/07/19
00689	S ORG C	C	MG/L		1	1.80000			1.80000	1.80000	75/09/02	75/09/02
00693	CARBON,B	M-IN+ORG	. GM/KG		1	5.10000			5.10000	5.10000	79/07/19	79/07/19
00720	CYANIDE	CN-TOT	MG/L		2	.000000	.000000	.000000	.000000	.000000	75/10/22	75/12/02
00900	TOT HARD	CACO3	MG/L		56	292.500	3593.78	59.9482	400.000	150.000	75/10/22	83/03/22
00902	NC HARD	CACO3	MG/L		45	60.1111	455.057	21.3321	130.000	12.0000	75/10/22	81/02/25
00915	CALCIUM	CA,DISS	MG/L		63	68.7936	189.179	13.7543	95.0000	36.0000	75/10/22	84/02/27
00925	MGNSIUM	MG,DISS	MG/L		63	29.0635	44.5774	6.67663	40.0000	14.0000	75/10/22	84/02/27
00930	SODIUM	NA,DISS	MG/L		63	29.6698	126.718	11.2569	51.0000	6.50000	75/10/22	84/02/27
00931	SODIUM	ADSBTION	RATIO		56	.758925	.056286	.2372[illegible]6	1.20000	.200000	75/10/22	83/03/22
00932	PERCENT	SODIUM	%		54	17.3889	12.5070	3.53652	24.0000	9.00000	75/10/22	83/03/22
00933	NA+K		MG/L		4	33.5000	207.000	14.3875	48.0000	15.0000	79/05/23	79/12/10
00935	PISSIUM	K,DISS	MG/L		61	3.56065	4.90339	2.21436	19.0000	1.50000	75/10/22	84/02/27
00940	CHLORIDE	TOTAL	MG/L		59	4.36440	1.77339	1.33169	8.10000	1.10000	75/10/22	84/02/27
00945	SULFATE	SO4-TOT	MG/L		61	117.803	1285.82	35.8583	210.000	41.0000	75/10/22	84/02/27
00950	FLUORIDE	F,DISS	MG/L		61	.204918	.001809	.042529	.300000	.000000	75/10/22	84/02/27
00955	SILICA	DISOLVED	MG/L		61	8.21142	4.14420	2.03573	14.0000	.200000	75/10/22	84/02/27
01000	ARSENIC	AS,DISS	UG/L		11	1.27273	.218184	.467102	2.00000	1.00000	76/03/05	81/04/29
				K	4	1.00000	.000000	.000000	1.00000	1.00000	75/10/22	79/04/27
				TOT	15	1.20000	.171430	.414041	2.00000	1.00000	75/10/22	81/04/29
01001	ARSENIC	AS,SUSP	UG/L		4	1.50000	5.66667	2.38048	5.00000	.000000	78/09/13	81/04/29
01002	ARSENIC	AS,TOT	UG/L		15	3.00000	6.28571	2.50713	10.0000	1.00000	78/09/13	82/05/18
01003	ARSENIC	SEDMG/KG	DRY WGT		2	8.00000	18.0000	4.24264	11.0000	5.00000	75/09/02	79/07/19
01020	BORON	B,DISS	UG/L		60	53.8333	722.345	26.8765	170.000	10.0000	75/10/22	84/02/27
				K	1	20.0000			20.0000	20.0000	78/09/13	78/09/13
				TOT	61	53.2787	729.073	27.0013	170.000	10.0000	75/10/22	84/02/27
01025	CADMIUM	CD,DISS	UG/L		3	3.33333	.333343	.577359	4.00000	3.00000	76/12/07	80/04/22
				K	8	1.75000	.214286	.462910	2.00000	1.00000	76/03/05	81/04/29
				U	5	.000000	.000000	.000000	.000000	.000000	75/09/02	77/03/29
				TOT	16	1.50000	1.60000	1.26491	4.00000	.000000	75/09/02	81/04/29
01026	CADMIUM	CD,SUSP	UG/L		5	.400000	.800000	.894427	2.00000	.000000	78/09/13	80/04/22
				K	1	10.0000			10.0000	10.0000	75/09/02	75/09/02
				TOT	6	2.00000	16.0000	4.00000	10.0000	.000000	75/09/02	80/04/22
01027	CADMIUM	CD,TOT	UG/L		11	.909091	.890909	.943880	3.00000	.000000	78/09/13	82/05/18

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08107 COLORADO ROUTT

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PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01027 CADMIUM	CD,TOT	UG/L	K	2	10.5000	180.500	13.4350	20.0000	1.00000	75/09/02	82/04/14
			U	3	.000000	.000000	.000000	.000000	.000000	79/04/27	79/08/15
			TOT	16	1.93750	23.9291	4.89174	20.0000	.000000	75/09/02	82/05/18
01028 CD MUD	DRY WGT	MG/KG-CD		1	.000000			.000000	.000000	79/07/19	79/07/19
01029 CHROMIUM	SEDMG/KG	DRY WGT		2	9.00000	2.00000	1.41421	10.0000	8.00000	75/09/02	79/07/19
01034 CHROMIUM	CR,TOT	UG/L		8	8.25000	108.786	10.4300	27.0000	.000000	80/04/15	82/05/18
01035 COBALT	CO,DISS	UG/L	U	1	.000000			.000000	.000000	75/09/02	75/09/02
01036 COBALT	CO,SUSP	UG/L	K	1	50.0000			50.0000	50.0000	75/09/02	75/09/02
01037 COBALT	CO,TOTAL	UG/L		9	6.44444	37.0278	6.08505	19.0000	1.00000	80/04/15	82/05/18
			K	1	100.000			100.000	100.000	75/09/02	75/09/02
			TOT	10	15.8000	908.177	30.1360	100.000	1.00000	75/09/02	82/05/18
01038 CO MUD	DRY WGT	MG/KG-CO		1	.000000			.000000	.000000	79/07/19	79/07/19
01040 COPPER	CU,DISS	UG/L		11	3.54545	10.8727	3.29738	13.0000	2.00000	75/09/02	81/04/29
			K	3	2.00000	.000000	.000000	2.00000	2.00000	76/03/05	79/05/23
			TOT	14	3.21428	8.79671	2.96592	13.0000	2.00000	75/09/02	81/04/29
01041 COPPER	CU,SUSP	UG/L		7	2.71428	4.90477	2.21467	6.00000	.000000	78/09/13	81/04/29
			K	1	8.00000			8.00000	8.00000	75/09/02	75/09/02
			TOT	8	3.37500	7.69643	2.77424	8.00000	.000000	75/09/02	81/04/29
01042 COPPER	CU,TOT	UG/L		15	9.06667	75.6381	8.69702	31.0000	1.00000	78/09/13	82/05/18
			K	1	20.0000			20.0000	20.0000	75/09/02	75/09/02
			TOT	16	9.75000	78.0667	8.83553	31.0000	1.00000	75/09/02	82/05/18
01043 COPPER	SEDMG/KG	DRY WGT		2	8.49999	.500076	.707161	8.99999	8.00000	75/09/02	79/07/19
01044 IRON	FE,SUSP	UG/L		23	3115.65	.644E+08	8025.60	39000.0	120.000	75/09/02	81/07/29
01045 IRON	FE,TOT	UG/L		32	5691.87	.136E+09	11662.8	52000.0	130.000	75/09/02	82/05/18
01046 IRON	FE,DISS	UG/L		38	77.8158	11882.9	109.009	620.000	10.0000	75/09/02	81/07/29
			K	13	10.0000	.000000	.000000	10.0000	10.0000	75/10/22	81/04/29
			TOT	51	60.5294	9684.29	98.4088	620.000	10.0000	75/09/02	81/07/29
01049 LEAD	PB,DISS	UG/L		14	2.57143	5.95605	2.44050	8.00000	.000000	75/12/02	81/07/29
			K	1	2.00000			2.00000	2.00000	75/10/22	75/10/22
			U	5	.000000	.000000	.000000	.000000	.000000	75/09/02	79/08/15
			TOT	20	1.90000	5.35790	2.31471	8.00000	.000000	75/09/02	81/07/29
01050 LEAD	PB,SUSP	UG/L		11	10.1818	140.364	11.8475	33.0000	.000000	78/09/13	81/07/29
			K	1	100.000			100.000	100.000	75/09/02	75/09/02
			TOT	12	17.6667	799.879	28.2821	100.000	.000000	75/09/02	81/07/29
01051 LEAD	PB,TOT	UG/L		19	10.5789	115.813	10.7616	34.0000	.000000	78/09/13	82/05/18
			K	1	200.000			200.000	200.000	75/09/02	75/09/02
			TOT	20	20.0500	1903.73	43.6318	200.000	.000000	75/09/02	82/05/18
01052 LEAD	SEDMG/KG	DRY WGT		2	30.0000	800.000	28.2843	50.0000	10.0000	75/09/02	79/07/19
01053 MN MUD	DRY WGT	MG/KG-MN		1	360.000			360.000	360.000	79/07/19	79/07/19
01054 MANGNESE	MN,SUSP	UG/L		26	120.000	73832.0	271.720	1400.00	.000000	75/09/02	81/07/29
01055 MANGNESE	MN	UG/L		32	350.625	225071	474.416	2400.00	70.0000	75/09/02	82/05/18

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243700
40 23 08.0 106 59 33.0 2
MIDDLE CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276124-0269521

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01056 MANGNESE	MN,DISS	UG/L		51	133.137	4785.97	69.1807	330.000	20.0000	75/09/02	81/07/29
01060 MOLY	MO,DISS	UG/L		1	.000000			.000000	.000000	80/04/22	80/04/22
			K	6	7.00000	21.6000	4.64758	10.0000	1.00000	78/09/13	81/04/29
			TOT	7	6.00000	25.0000	5.00000	10.0000	.000000	78/09/13	81/04/29
01061 MOLY	MO,SUSP	UG/L		5	1.40000	4.80000	2.19089	5.00000	.000000	78/09/13	80/04/22
01062 MOLY	MO,TOT	UG/L		10	5.90000	211.878	14.5560	47.0000	.000000	78/09/13	81/04/29
			K	2	1.00000	.000000	.000000	1.00000	1.00000	79/04/27	79/08/15
			TOT	12	5.08333	176.992	13.3039	47.0000	.000000	78/09/13	81/04/29
01065 NICKEL	NI,DISS	UG/L		10	5.60000	52.7111	7.26024	25.0000	.000000	75/09/02	81/04/29
			U	6	.000000	.000000	.000000	.000000	.000000	75/12/02	79/04/27
			TOT	16	3.50000	39.4667	6.28225	25.0000	.000000	75/09/02	81/04/29
01066 NICKEL	NI,SUSP	UG/L		7	4.85714	68.1428	8.25487	22.0000	.000000	78/09/13	81/04/29
			K	1	48.0000			48.0000	48.0000	75/09/02	75/09/02
			TOT	8	10.2500	291.071	17.0608	48.0000	.000000	75/09/02	81/04/29
01067 NICKEL	NI,TOTAL	UG/L		11	11.9091	141.691	11.9034	37.0000	.000000	79/04/27	81/04/29
			K	1	50.0000			50.0000	50.0000	75/09/02	75/09/02
			U	1	.000000			.000000	.000000	78/09/13	78/09/13
			TOT	13	13.9231	246.410	15.6975	50.0000	.000000	75/09/02	81/04/29
01068 NICKEL	SEDMG/KG	DRY WGT		1	8.00000			8.00000	8.00000	75/09/02	75/09/02
01080 STRONTUM	SR,DISS	UG/L		13	552.308	19752.8	140.545	750.000	290.000	82/06/03	84/02/27
01085 VANADIUM	V,DISS	UG/L		7	.585714	.218095	.467007	1.50000	.000000	75/09/02	78/06/19
01090 ZINC	ZN,DISS	UG/L		7	32.4286	1386.62	37.2373	110.000	6.00000	75/10/22	81/07/29
			K	9	8.66667	72.2500	8.50000	20.0000	3.00000	75/09/02	81/04/29
			U	4	.000000	.000000	.000000	.000000	.000000	75/12/02	77/03/29
			TOT	20	15.2500	646.513	25.4266	110.000	.000000	75/09/02	81/07/29
01091 ZINC	ZN,SUSP	UG/L		10	21.0000	1315.78	36.2736	120.000	.000000	75/09/02	81/07/29
01092 ZINC	ZN,TOT	UG/L		18	62.7778	9844.77	99.2208	420.000	.000000	75/09/02	82/05/18
			K	1	20.0000			20.0000	20.0000	78/09/13	78/09/13
			U	1	.000000			.000000	.000000	79/08/15	79/08/15
			TOT	20	57.5000	9082.89	95.3042	420.000	.000000	75/09/02	82/05/18
01093 ZINC	SEDMG/KG	DRY WGT		1	21.0000			21.0000	21.0000	79/07/19	79/07/19
01095 ANTIMONY	SB,DISS	UG/L		1	6.00000			6.00000	6.00000	78/06/19	78/06/19
			K	6	1.00000	.000000	.000000	1.00000	1.00000	75/10/22	77/03/29
			TOT	7	1.71428	3.57143	1.88982	6.00000	1.00000	75/10/22	78/06/19
01098 ANTIMONY	SEDMG/KG	DRY WGT		1	3.00000			3.00000	3.00000	75/09/02	75/09/02
01105 ALUMINUM	AL,TOT	UG/L		19	3000.00	.169E+08	4117.12	14000.0	.000000	78/09/13	82/05/18
01106 ALUMINUM	AL,DISS	UG/L		9	18.6667	641.000	25.3180	80.0000	.000000	78/09/13	81/07/29
			K	2	100.000	.000000	.000000	100.000	100.000	79/04/27	79/08/15
			TOT	11	33.4545	1595.27	39.9409	100.000	.000000	78/09/13	81/07/29
01107 ALUMINUM	AL,SUSP	UG/L		11	1668.18	6159796	2481.89	8000.00	.000000	78/09/13	81/07/29
01108 AL MUD	DRY WGT	MG/KG-AL		1	2500.00			2500.00	2500.00	79/07/19	79/07/19

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09243700
40 23 08.0 106 59 33.0 2
MIDDLE CREEK NEAR OAK CREEK, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 760220 14050001000
0000 CLASS 00 CSN-RSP 0276124-0269521

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01145 SELENIUM	SE,DISS	UG/L		8	.750000	.214286	.462910	1.00000	.000000	76/12/07	81/04/29
			K	6	1.00000	.000000	.000000	1.00000	1.00000	75/09/02	79/08/15
			TOT	14	.857143	.131868	.363137	1.00000	.000000	75/09/02	81/04/29
01146 SELENIUM	SE,SUSP	UG/L		8	.125000	.125000	.353553	1.00000	.000000	75/09/02	81/04/29
01147 SELENIUM	SE,TOT	UG/L		13	.846154	.474359	.688737	2.00000	.000000	79/04/27	82/05/18
			K	3	1.00000	.000000	.000000	1.00000	1.00000	75/09/02	79/08/15
			TOT	16	.875000	.383333	.619139	2.00000	.000000	75/09/02	82/05/18
01148 SELENIUM	SEDMG/KG	DRY WGT		1	.000000			.000000	.000000	79/07/19	79/07/19
01170 FE MUD	DRY WGT	MG/KG-FE		2	8900.00	.192E+08	4384.06	12000.0	5800.00	75/09/02	79/07/19
01330 ODOR	ATMOSPH	SEVERITY		19	.052632	.052632	.229416	1.00000	.000000	75/10/22	78/01/24
70300 RESIDUE	DISS-180	C MG/L		1	486.000			486.000	486.000	81/01/20	81/01/20
70301 DISS SOL	SUM	MG/L		53	401.000	9422.75	97.0708	561.000	184.000	75/10/22	83/03/22
70302 DISS SOL	TONS/DAY			53	3.58565	47.6584	6.90350	33.4000	.010000	75/10/22	83/03/22
70303 DISS SOL	TONS PER	ACRE-FT		54	.546292	.016741	.129388	.760001	.250000	75/10/22	83/03/22
70331 SUSP SED	PARTSIZE	%<.062MM		6	66.7499	73.5875	8.57832	77.0000	58.0000	80/04/15	82/04/14
71846 AMMONIA	DISS-NH4	MG/L		7	.100000	.002667	.051640	.140000	.000000	81/01/20	83/03/22
71851 NITRATE	DISS-NO3	MG/L		1	.200000			.200000	.200000	81/05/27	81/05/27
71856 NITRITE	DISS-NO2	MG/L		1	.000000			.000000	.000000	81/05/27	81/05/27
71886 TOTAL P	AS PO4	MG/L		6	2.34667	8.79224	2.96517	7.70000	.250000	80/04/15	80/05/28
71887 TOTAL N	AS NO3	MG/L		1	2.60000			2.60000	2.60000	75/09/02	75/09/02
71890 MERCURY	HG,DISS	UG/L		4	.125000	.062500	.250000	.500000	.000000	77/06/27	81/04/29
			K	12	.333333	.042424	.205971	.500000	.100000	75/09/02	79/08/15
			TOT	16	.281250	.052292	.228673	.500000	.000000	75/09/02	81/04/29
71895 MERCURY	HG,SUSP	UG/L		8	.200000	.277143	.526443	1.50000	.000000	75/09/02	81/04/29
71900 MERCURY	HG,TOTAL	UG/L		11	.209091	.188909	.434637	1.50000	.000000	80/04/15	82/05/18
			K	5	.180000	.032000	.178885	.500000	.100000	75/09/02	79/08/15
			TOT	16	.200000	.134667	.366969	1.50000	.000000	75/09/02	82/05/18
71921 MERCURY	SEDMG/KG	DRY WGT		2	.020000	.000200	.014142	.030000	.010000	75/09/02	79/07/19
80154 SUSP SED	CONC	MG/L		56	283.034	479905	692.752	4320.00	8.00000	75/11/05	83/09/12
80155 SUSP SED	DISCHARG	TONS/DAY		49	25.2395	8455.52	91.9539	537.000	.000000	75/11/05	82/09/29
			K	1	.010000			.010000	.010000	78/01/24	78/01/24
			TOT	50	24.7349	8295.69	91.0807	537.000	.000000	75/11/05	82/09/29
82068 POTAS-40	K-40,DIS	PC/LITER		6	2.41667	.909662	.953762	4.30000	1.60000	81/01/20	81/07/01
82398 SAMPLING	METHOD	(CODES)		1	40.0000			40.0000	40.0000	84/02/27	84/02/27

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 180.00

000038
40 29 00.0 107 00 00.0 4
YAMPA RIVER AT MILNER
08107 COLORADO ROUTT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050001000
0000 CLASS 00 CSN-RSP 0041197-0405143

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00011	WATER	TEMP	FAHN		121	43.2727	145.252	12.0521	72.0000	31.0000	68/03/26	84/02/06
00021	AIR	TEMP	FAHN		19	45.2631	398.539	19.9634	80.0000	10.0000	81/01/13	84/02/06
00042	ALTITUDE	FEET	AB MSL		1	6530.00			6530.00	6530.00	01/01/01	01/01/01
00076	TURB	TRBIDMTR	HACH FTU		89	16.7168	692.395	26.3134	160.000	1.10000	68/03/26	80/06/11
00095	CNDUCTVY	AT 25C	MICROMHO		109	251.330	12451.1	111.585	910.000	54.0000	68/03/26	84/02/06
00096	SALINITY	AT 25C	MG/ML		1	300.000			300.000	300.000	77/01/12	77/01/12
00300	DO		MG/L		78	10.3871	2.23179	1.49392	14.2000	5.80000	73/01/11	84/02/06
				L	1	15.0000			15.0000	15.0000	75/12/09	75/12/09
				TOT	79	10.4455	2.47251	1.57242	15.0000	5.80000	73/01/11	84/02/06
00310	BOD	5 DAY	MG/L		79	2.04557	1.62662	1.27539	9.00000	.500000	68/04/16	84/02/06
				J	1	3.00000			3.00000	3.00000	79/02/27	79/02/27
				K	3	1.00000	.000000	.000000	1.00000	1.00000	80/06/11	83/09/07
				TOT	83	2.01928	1.59768	1.26399	9.00000	.500000	68/04/16	84/02/06
00400	PH		SU		110	8.07538	.278311	.527552	9.20000	6.90000	68/03/26	84/02/06
00410	T ALK	CACO3	MG/L		25	83.2800	619.297	24.8857	120.000	18.0000	78/02/07	84/02/06
00500	RESIDUE	TOTAL	MG/L		17	206.471	3780.39	61.4849	334.000	98.0000	74/04/03	75/09/22
00505	RESIDUE	TOT VOL	MG/L		17	39.9412	5004.81	70.7447	189.000	1.00000	68/04/16	73/10/17
00530	RESIDUE	TOT NFLT	MG/L		72	36.9305	2533.87	50.3376	280.000	.000000	68/04/16	83/07/11
				K	21	9.76190	1.19049	1.09110	10.0000	5.00000	75/12/09	84/02/06
				TOT	93	30.7957	2086.19	45.6748	280.000	.000000	68/04/16	84/02/06
00545	RESIDUE	SETTLBLE	ML/L		4	3.45000	40.5500	6.36789	13.0000	.100000	68/04/16	73/03/13
				K	13	.169230	.062307	.249614	1.00000	.100000	68/07/23	73/05/07
				TOT	17	.941176	9.70757	3.11570	13.0000	.100000	68/04/16	73/05/07
00556	OIL-GRSE	FREON-GR	MG/L		7	10.0000	.000000	.000000	10.0000	10.0000	81/11/23	82/12/06
				K	12	10.0000	.000000	.000000	10.0000	10.0000	81/01/13	84/02/06
				TOT	19	10.0000	.000000	.000000	10.0000	10.0000	81/01/13	84/02/06
00610	NH3+NH4-	N TOTAL	MG/L		83	.190843	.034361	.185368	.830000	.000000	68/10/14	83/05/09
				K	20	.132500	.016125	.126985	.500000	.050000	79/07/10	84/02/06
				TOT	103	.179514	.031165	.176537	.830000	.000000	68/10/14	84/02/06
00615	NO2-N	TOTAL	MG/L		74	.006203	.000079	.008877	.055000	.000000	68/11/26	79/05/08
00620	NO3-N	TOTAL	MG/L		75	.388931	.442160	.664951	4.90000	.000000	68/10/14	79/05/08
00625	TOT KJEL	N	MG/L		5	1.20400	.854080	.924165	2.60000	.120000	76/04/07	82/12/06
				K	25	1.00000	.000000	.000000	1.00000	1.00000	79/07/10	84/02/06
				TOT	30	1.03400	.123785	.351830	2.60000	.120000	76/04/07	84/02/06
00630	NO2&NO3	N-TOTAL	MG/L		5	.602000	.245820	.495802	1.30000	.100000	79/11/07	84/02/06
				K	22	.484091	.028902	.170005	1.00000	.050000	79/07/10	83/11/14
				TOT	27	.505926	.063340	.251675	1.30000	.050000	79/07/10	84/02/06
00650	T PO4	PO4	MG/L		33	.266666	.142135	.377008	1.50000	.000000	68/10/14	73/10/17
00665	PHOS-TOT		MG/L P		51	.102451	.011546	.107454	.600000	.000000	74/04/03	84/02/06
				K	12	.095833	.017027	.130486	.500000	.050000	80/09/14	83/11/14
				TOT	63	.101190	.012339	.111082	.600000	.000000	74/04/03	84/02/06

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 180.00

000038
40 29 00.0 107 00 00.0 4
YAMPA RIVER AT MILNER
08107 COLORADO ROUTT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050001000
0000 CLASS 00 CSN-RSP 0041197-0405143

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00723 CYANIDE	DISSOLVE	UG/L		57	.000877	.000022	.004721	.034000	.000000	68/03/26	82/02/23
			K	16	.040312	.015028	.122590	.500000	.005000	78/12/12	83/05/09
			TOT	73	.009521	.003418	.058464	.500000	.000000	68/03/26	83/05/09
00900 TOT HARD	CACO3	MG/L		91	105.209	1218.99	34.9141	236.000	24.0000	68/03/26	84/02/06
00910 CALCIUM	CACO3	MG/L		75	72.3333	578.365	24.0492	120.000	16.0000	68/03/26	80/12/08
00927 MGNSIUM	MG,TOT	MG/L		75	8.66667	16.1442	4.01799	28.0000	2.00000	68/03/26	80/12/08
00929 SODIUM	NA,TOT	MG/L		91	14.2637	61.5964	7.84834	45.0000	1.00000	68/03/26	80/04/22
			K	2	5.00000	.000000	.000000	5.00000	5.00000	79/07/10	80/06/11
			TOT	93	14.0645	62.0828	7.87926	45.0000	1.00000	68/03/26	80/06/11
00931 SODIUM	ADSBTION	RATIO		86	.591857	.097229	.311815	2.00000	.000000	68/03/26	80/06/11
00937 PTSSIUM	K,TOT	MG/L		8	2.07500	.345003	.587370	3.00000	.900000	78/02/07	83/05/09
			K	2	1.00000	.000000	.000000	1.00000	1.00000	80/06/11	82/04/27
			TOT	10	1.86000	.473785	.688321	3.00000	.900000	78/02/07	83/05/09
00940 CHLORIDE	TOTAL	MG/L		86	10.1163	45.8452	6.77091	53.0000	.000000	68/03/26	80/06/11
00945 SULFATE	SO4-TOT	MG/L		85	27.6353	280.402	16.7452	128.000	5.00000	68/10/14	84/02/06
			K	3	8.33333	8.33340	2.88676	10.0000	5.00000	82/04/27	83/07/11
			TOT	88	26.9773	283.333	16.8325	128.000	5.00000	68/10/14	84/02/06
00951 FLUORIDE	F,TOTAL	MG/L		44	.380681	.334090	.578005	4.00000	.100000	68/03/26	77/07/20
00980 IRON	TOT REC	UG/L		96	417.604	405742	636.979	5300.00	.000000	68/03/26	84/02/06
			K	3	100.000	.000000	.000000	100.000	100.000	81/05/20	83/11/14
			TOT	99	407.980	396316	629.536	5300.00	.000000	68/03/26	84/02/06
00998 BERYLIUM	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	3	50.0000	.000000	.000000	50.0000	50.0000	80/12/08	81/11/23
			TOT	6	25.0000	750.000	27.3861	50.0000	.000000	79/05/08	81/11/23
01002 ARSENIC	AS,TOT	UG/L		42	.000000	.000000	.000000	.000000	.000000	68/03/26	80/06/11
			K	6	10.0000	.000000	.000000	10.0000	10.0000	80/12/08	83/05/09
			TOT	48	1.25000	11.1702	3.34219	10.0000	.000000	68/03/26	83/05/09
01022 BORON	B,TOT	UG/L		54	32.0000	1357.89	36.8495	160.000	.000000	68/04/16	81/11/23
			K	3	46.6667	133.336	11.5471	60.0000	40.0000	79/05/08	80/12/08
			TOT	57	32.7719	1300.82	36.0669	160.000	.000000	68/04/16	81/11/23
01032 CHROMIUM	HEX-VAL	UG/L		36	.000000	.000000	.000000	.000000	.000000	68/03/26	77/01/12
01045 IRON	FE,TOT	UG/L		1	300.000			300.000	300.000	83/07/11	83/07/11
01074 NICKEL	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	4	87.5000	625.000	25.0000	100.000	50.0000	78/12/12	81/11/23
			TOT	7	50.0000	2500.00	50.0000	100.000	.000000	78/12/12	81/11/23
01079 SILVER	TOT.REC.	UG/L		21	.904762	17.1905	4.14614	19.0000	.000000	68/11/26	80/06/11
			K	6	.200000	.357E-07	.000189	.200000	.200000	80/12/08	83/05/09
			TOT	27	.748148	13.3126	3.64864	19.0000	.000000	68/11/26	83/05/09
01094 ZINC(ZN)	TOT.REC.	UG/L		77	37.5454	10385.7	101.910	610.000	.000000	68/03/26	83/05/09
			K	17	12.3529	19.1177	4.37238	20.0000	10.0000	80/08/14	84/02/06
			TOT	94	32.9893	8585.60	92.6585	610.000	.000000	68/03/26	84/02/06

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

000038
40 29 00.0 107 00 00.0 4
YAMPA RIVER AT MILNER
08107 COLORADO ROUTT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050001000
0000 CLASS 00 CSN-RSP 0041197-0405143

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 180.00

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01104 ALUMINUM	TOT.REC.	UG/L			3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
				K	4	1125.00	62500.0	250.000	1500.00	1000.00	78/12/12	81/11/23
01113 CADIUM T	OT.REC.	UG/L		TOT	7	642.857	392858	626.784	1500.00	.000000	78/12/12	81/11/23
					65	.944614	4.93375	2.22120	9.20000	.000000	68/03/26	83/09/07
01114 LEAD(PB)	TOT.REC.	UG/L		K	9	.300000	.253E-06	.000503	.300000	.300000	81/01/13	84/02/06
				TOT	74	.866215	4.37047	2.09057	9.20000	.000000	68/03/26	84/02/06
01118 CHRMIUM	TOT.REC.	UG/L			63	2.52381	73.3502	8.56447	44.0000	.000000	68/03/26	81/03/09
01119 COPPER	TOT.REC.	UG/L		K	21	5.19048	.761914	.872877	9.00000	5.00000	78/12/12	84/02/06
				TOT	84	3.19048	56.3247	7.50498	44.0000	.000000	68/03/26	84/02/06
01123 MNGANESE	TOT.REC.	UG/L			7	.000000	.000000	.000000	.000000	.000000	76/08/23	77/11/16
					67	3.13433	34.4817	5.87211	32.0000	.000000	68/03/26	82/02/23
01129 MOLBDNUM	TOT.REC.	UG/L		K	19	5.05263	.052639	.229433	6.00000	5.00000	78/12/12	84/02/06
01147 SELENIUM	SE,TOT	UG/L		TOT	86	3.55814	27.4260	5.23698	32.0000	.000000	68/03/26	84/02/06
					75	21.3333	3025.23	55.0020	310.000	.000000	68/03/26	83/05/09
01503 ALPHA	DISOLVED	PC/L		K	21	50.0000	.000000	.000000	50.0000	50.0000	78/12/12	84/02/06
01504 ALPHA-D	ERROR	PC/L		TOT	96	27.6042	2498.41	49.9841	310.000	.000000	68/03/26	84/02/06
03501 BETA	TOTAL	PC/L			26	2.50000	66.5000	8.15475	40.0000	.000000	71/02/01	77/07/20
03503 BETA	DISOLVED	PC/L			39	.743590	2.19568	1.48178	5.00000	.000000	68/03/26	80/06/11
03504 BETA-D	ERROR	PC/L		K	4	2.75000	2.25000	1.50000	5.00000	2.00000	78/12/12	81/11/23
22703 U-NAT	DISOLVED	UG/L		TOT	43	.930233	2.49502	1.57956	5.00000	.000000	68/03/26	81/11/23
31505 TOT COLI	MPN CONF	/100ML			15	11.1533	24.5884	4.95867	22.0000	.400000	70/10/13	77/01/12
					15	7.59333	2.73783	1.65464	11.0000	4.50000	70/10/13	77/01/12
31615 FEC COLI	MPNECMED	/100ML			1	9.00000			9.00000	9.00000	78/04/17	78/04/17
					8	11.7662	25.1697	5.01694	18.0000	5.50000	70/04/07	77/05/03
					8	9.92375	6.90140	2.62705	14.2000	5.19000	70/04/07	77/05/03
					7	1.15286	.496891	.704905	2.07000	.000000	79/05/08	83/05/09
					75	1948.28	.171E+08	4141.09	23000.0	15.0000	68/03/26	78/04/17
				L	1	22000.0			22000.0	22000.0	72/06/07	72/06/07
				TOT	76	2212.12	.222E+08	4712.79	23000.0	15.0000	68/03/26	78/04/17
					98	248.526	325430	570.465	4300.00	2.00000	68/03/26	84/02/06
				K	13	103.169	9685.11	98.4129	220.000	2.20000	68/04/16	81/11/23
				L	1	22000.0			22000.0	22000.0	72/06/07	72/06/07
				O	1	.000000			.000000	.000000	83/07/11	83/07/11
				TOT	113	422.095	4479835	2116.56	22000.0	.000000	68/03/26	84/02/06
38260 MBAS		MG/L			48	.000000	.000000	.000000	.000000	.000000	69/05/19	77/09/13
39330 ALDRIN		TOT UG/L			1	.000000			.000000	.000000	77/07/20	77/07/20
39360 DDD	WHL SMPL	UG/L			1	.000000			.000000	.000000	77/07/20	77/07/20
39365 DDE	WHL SMPL	UG/L			1	.000000			.000000	.000000	77/07/20	77/07/20
39370 DDT	WHL SMPL	UG/L			1	.000000			.000000	.000000	77/07/20	77/07/20
39380 DIELDRIN		TOTUG/L			1	.000000			.000000	.000000	77/07/20	77/07/20
39390 ENDRIN		TOT UG/L			1	.000000			.000000	.000000	77/07/20	77/07/20

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

000038
40 29 00.0 107 00 00.0 4
YAMPA RIVER AT MILNER
08107 COLORADO ROUTT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050001000
0000 CLASS 00 CSN-RSP 0041197-0405143

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 180.00

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39398 ETHION	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39400 TOXAPHEN			TOTUG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39410 HEPTCHLR			TOTUG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39420 HPCHLREP			TOTUG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39480 MTHXYCLR	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39530 MALATHN	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39540 PARATHN	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39570 DIAZINON	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39600 MPARATHN	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39730 2,4-D	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39740 2,4,5-T	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39760 SILVEX	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39782 LINDANE	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
39786 TRITHION	WHL SMPL		UG/L		1	.000000			.000000	.000000	77/07/20	77/07/20
70300 RESIDUE	DISS-180	C	MG/L		112	155.670	2857.15	53.4523	398.000	30.0000	68/03/26	84/02/06
71900 MERCURY	HG,TOTAL		UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
				K	6	.500000	.000000	.000000	.500000	.500000	80/12/08	83/05/09
				TOT	9	.333333	.062500	.250000	.500000	.000000	79/05/08	83/05/09

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

000154
40 29 00.0 106 58 44.0 2
ELK RIVER NEAR MILNER
08107 COLORADO ROUTT
COLORADO RIVER 110600
GREEN RIVER
21COL001 800419
0000 CLASS 00 CSN-RSP 0541463-0406040

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00011 WATER	TEMP	FAHN			20	42.4400	106.437	10.3168	67.0000	32.0000	79/05/08	82/06/08
00021 AIR	TEMP	FAHN			10	51.0000	271.111	16.4654	75.0000	30.0000	81/01/13	82/06/08
00076 TURB	TRBIDMTR	HACH FTU			7	17.7143	710.678	26.6585	76.0000	2.20000	79/05/08	80/06/11
00095 CNDUCTVY	AT 25C	MICROMHO			12	127.417	2341.91	48.3933	210.000	50.0000	79/05/08	82/06/08
00300 DO		MG/L			20	11.0450	2.62055	1.61881	13.8000	8.00000	79/05/08	82/06/08
00310 BOD	5 DAY	MG/L			7	1.42857	.285717	.534525	2.00000	1.00000	79/05/08	80/06/11
00400 PH		SU			18	7.70555	.225270	.474626	8.70000	7.00000	79/05/08	82/06/08
00410 T ALK	CACO3	MG/L			11	48.5454	184.075	13.5674	64.0000	28.0000	79/05/08	82/06/08
00530 RESIDUE	TOT NFLT	MG/L			7	58.5714	4551.28	67.4632	200.000	10.0000	79/05/08	82/06/08
				K	13	9.23085	7.69080	2.77323	10.0000	.001000	79/09/19	82/02/23
				TOT	20	26.5000	2025.10	45.0011	200.000	.001000	79/05/08	82/06/08
00556 OIL-GRSE	FREON-GR	MG/L			3	10.0000	.000000	.000000	10.0000	10.0000	82/02/23	82/06/08
				K	11	10.0000	.000000	.000000	10.0000	10.0000	80/06/11	81/12/10
				TOT	14	10.0000	.000000	.000000	10.0000	10.0000	80/06/11	82/06/08
00610 NH3+NH4-	N TOTAL	MG/L			4	.250000	.017800	.133416	.370000	.060000	79/05/08	82/06/08
				K	13	.180769	.033558	.183188	.500000	.050000	79/09/19	82/04/27
				TOT	17	.197058	.029422	.171529	.500000	.050000	79/05/08	82/06/08
00615 NO2-N	TOTAL	MG/L			1	.004000			.004000	.004000	79/05/08	79/05/08
00620 NO3-N	TOTAL	MG/L			1	.500000			.500000	.500000	79/05/08	79/05/08
00625 TOT KJEL	N	MG/L		K	17	1.00000	.000000	.000000	1.00000	1.00000	79/07/10	82/06/08
00630 NO2&NO3	N-TOTAL	MG/L			3	.393333	.180134	.424422	.880000	.100000	79/11/07	80/04/22
				K	15	.443333	.022452	.149842	.500000	.050000	79/07/10	82/06/08
				TOT	18	.435000	.040050	.200125	.880000	.050000	79/07/10	82/06/08
00665 PHOS-TOT		MG/L P			6	.118333	.004817	.069402	.240000	.060000	79/05/08	82/04/27
				K	13	.188461	.046731	.216173	.500000	.050000	79/07/10	82/06/08
				TOT	19	.166315	.033613	.183339	.500000	.050000	79/05/08	82/06/08
00670 PHOS-TOT	ORGANIC	MG/L P		K	1	.100000			.100000	.100000	79/07/10	79/07/10
00723 CYANIDE	DISSOLVE	UG/L			11	.001500	.000023	.004811	.016000	.000000	79/05/08	82/04/27
				K	9	.020000	.000900	.030000	.100000	.010000	80/12/08	82/06/08
				TOT	20	.009825	.000480	.021916	.100000	.000000	79/05/08	82/06/08
00900 TOT HARD	CACO3	MG/L			7	58.5485	1162.70	34.0984	100.000	.840000	79/05/08	80/12/08
00910 CALCIUM	CACO3	MG/L			7	51.2857	331.907	18.2183	74.0000	17.0000	79/05/08	80/12/08
00927 MGNSIUM	MG,TOT	MG/L			7	4.71428	4.57145	2.13809	7.00000	2.00000	79/05/08	80/12/08
00929 SODIUM	NA,TOT	MG/L			3	4.35000	16.1175	4.01466	8.00000	.050000	79/05/08	80/04/22
				K	4	5.00000	.000000	.000000	5.00000	5.00000	79/07/10	80/06/11
				TOT	7	4.72143	5.49325	2.34377	8.00000	.050000	79/05/08	80/06/11
00931 SODIUM	ADSBTION	RATIO			6	.266667	.006667	.081650	.400000	.200000	79/05/08	80/06/11
00937 PTSSIUM	K,TOT	MG/L			5	1.28000	.172000	.414729	2.00000	1.00000	79/05/08	81/11/23
				K	1	1.00000			1.00000	1.00000	82/06/08	82/06/08
				TOT	6	1.23333	.150668	.388160	2.00000	1.00000	79/05/08	82/06/08
00940 CHLORIDE	TOTAL	MG/L			6	3.50000	.700000	.836660	4.00000	2.00000	79/05/08	80/06/11

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

000154
40 29 00.0 106 58 44.0 2
ELK RIVER NEAR MILNER
08107 COLORADO ROUTT
COLORADO RIVER 110600
GREEN RIVER
21COL001 800419
0000 CLASS 00 CSN-RSP 0541463-0406040

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00940 CHLORIDE	TOTAL	MG/L	K	1	3.00000			3.00000	3.00000	79/11/07	79/11/07
			TOT	7	3.42857	.619059	.786803	4.00000	2.00000	79/05/08	80/06/11
00945 SULFATE	SO4-TOT	MG/L		13	19.3077	122.398	11.0634	50.0000	7.00000	79/05/08	82/04/27
			K	6	8.33333	6.66670	2.58199	10.0000	5.00000	79/07/10	82/06/08
			TOT	19	15.8421	110.918	10.5318	50.0000	5.00000	79/05/08	82/06/08
00980 IRON	TOT REC	UG/L		18	307.222	128974	359.130	1500.00	.000000	79/05/08	82/06/08
			K	1	100.000			100.000	100.000	80/10/09	80/10/09
			TOT	19	296.316	124069	352.234	1500.00	.000000	79/05/08	82/06/08
00998 BERYLIUM	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	3	50.0000	.000000	.000000	50.0000	50.0000	80/12/08	81/11/23
			TOT	6	25.0000	750.000	27.3861	50.0000	.000000	79/05/08	81/11/23
01002 ARSENIC	AS,TOT	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	4	10.0000	.000000	.000000	10.0000	10.0000	80/12/08	82/06/08
			TOT	7	5.71428	28.5714	5.34523	10.0000	.000000	79/05/08	82/06/08
01022 BORON	B,TOT	UG/L		2	110.000	9800.00	98.9949	180.000	40.0000	79/11/07	81/05/20
			K	4	50.0000	133.333	11.5470	60.0000	40.0000	79/05/08	81/11/23
			TOT	6	70.0000	3000.00	54.7723	180.000	40.0000	79/05/08	81/11/23
01074 NICKEL	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	3	83.3333	833.336	28.8675	100.000	50.0000	80/12/08	81/11/23
			TOT	6	41.6667	2416.67	49.1596	100.000	.000000	79/05/08	81/11/23
01079 SILVER	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	4	.200000	-.198E-07	.000000	.200000	.200000	80/12/08	82/06/08
			TOT	7	.114286	.011429	.106904	.200000	.000000	79/05/08	82/06/08
01094 ZINC(ZN)	TOT.REC.	UG/L		8	23.7500	1283.93	35.8320	100.000	.000000	79/05/08	81/11/23
			K	11	13.6364	25.4546	5.04525	20.0000	10.0000	80/08/14	82/06/08
			TOT	19	17.8947	539.766	23.2329	100.000	.000000	79/05/08	82/06/08
01104 ALUMINUM	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	3	1166.67	83334.0	288.676	1500.00	1000.00	80/12/08	81/11/23
			TOT	6	583.333	441667	664.580	1500.00	.000000	79/05/08	81/11/23
01113 CADIUM T	OT.REC.	UG/L		7	.457143	1.17286	1.08298	2.90000	.000000	79/05/08	80/06/11
			K	12	.299999	.260E-06	.000510	.300000	.300000	80/08/14	82/06/08
			TOT	19	.357894	.397018	.630093	2.90000	.000000	79/05/08	82/06/08
01114 LEAD(PB)	TOT.REC.	UG/L		8	.875000	6.12500	2.47487	7.00000	.000000	79/05/08	81/11/23
			K	11	5.00000	.000000	.000000	5.00000	5.00000	80/08/14	82/06/08
			TOT	19	3.26316	6.76024	2.60004	7.00000	.000000	79/05/08	82/06/08
01118 CHRMIUM	TOT.REC.	UG/L		6	.008333	.000417	.020412	.050000	.000000	79/05/08	80/06/11
			K	10	5.00000	.000000	.000000	5.00000	5.00000	80/08/14	82/04/27
			TOT	16	3.12812	6.22933	2.49586	5.00000	.000000	79/05/08	82/04/27
01119 COPPER	TOT.REC.	UG/L		9	2.56111	14.9961	3.87248	9.00000	.000000	79/05/08	82/04/27
			K	10	5.00000	.000000	.000000	5.00000	5.00000	80/08/14	82/06/08
			TOT	19	3.84474	8.23026	2.86884	9.00000	.000000	79/05/08	82/06/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

000154
40 29 00.0 106 58 44.0 2
ELK RIVER NEAR MILNER
08107 COLORADO ROUTT
COLORADO RIVER 110600
GREEN RIVER
21COL001 800419
0000 CLASS 00 CSN-RSP 0541463-0406040

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01123 MNGANESE	TOT.REC.	UG/L		8	36.2500	3426.79	58.5388	160.000	.000000	79/05/08	82/04/27
			K	11	50.0000	.000000	.000000	50.0000	50.0000	80/08/14	82/06/08
			TOT	19	44.2105	1381.29	37.1657	160.000	.000000	79/05/08	82/06/08
01147 SELENIUM	SE,TOT	UG/L		4	.500000	1.00000	1.00000	2.00000	.000000	79/05/08	81/05/20
			K	2	2.00000	.000000	.000000	2.00000	2.00000	80/12/08	81/11/23
			TOT	6	1.00000	1.20000	1.09544	2.00000	.000000	79/05/08	81/11/23
22703 U-NAT	DISOLVED	UG/L		5	2.54800	5.52152	2.34979	6.00000	.740000	79/05/08	82/06/08
31615 FEC COLI	MPNECMED	/100ML		18	115.500	52412.1	228.937	930.000	7.00000	79/05/08	82/06/08
			K	1	3.00000			3.00000	3.00000	81/03/09	81/03/09
			TOT	19	109.579	50166.5	223.979	930.000	3.00000	79/05/08	82/06/08
70300 RESIDUE	DISS-180 C	MG/L		19	90.7368	1100.99	33.1811	170.000	30.0000	79/05/08	82/06/08
71900 MERCURY	HG,TOTAL	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	4	.500000	.000000	.000000	.500000	.500000	80/12/08	82/06/08
			TOT	7	.285714	.071429	.267261	.500000	.000000	79/05/08	82/06/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09239500
40 29 01.0 106 49 54.0 2
YAMPA RIVER AT STEAMBOAT SPRINGS, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0263849-0269508

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00010	WATER	TEMP	CENT		288	7.42874	46.4225	6.81341	25.0000	.000000	58/06/16	83/09/26
00027	COLLECT	AGENCY	CODE		14	1028.00	.000000	.000000	1028.00	1028.00	82/10/28	83/09/26
00028	ANALYZE	AGENCY	CODE		14	23597.1	.137E+10	37032.0	80020.0	1028.00	82/10/28	83/09/26
00041	WEATHER	WMO CODE	4501		1	.000000			.000000	.000000	75/08/25	75/08/25
00060	STREAM	FLOW	CFS		26	437.689	458210	676.912	2210.00	66.9999	50/06/03	76/11/24
00061	STREAM	FLOW,	INST-CFS		18	834.604	1057197	1028.20	3230.00	60.8999	75/06/25	83/07/27
				J	2	1100.50	1997993	1413.50	2100.00	101.000	76/03/01	76/06/08
				TOT	20	861.193	1057767	1028.48	3230.00	60.8999	75/06/25	83/07/27
00065	STREAM	STAGE	FEET		4	4.08750	1.20231	1.09650	5.14000	2.57000	83/05/27	83/07/27
00095	CNDUCTVY	AT 25C	MICROMHO		100	248.998	9805.45	99.0225	616.000	55.0000	50/06/03	83/09/26
00300	DO		MG/L		22	9.97727	3.94950	1.98733	13.0000	6.50000	75/08/25	76/12/14
00310	BOD	5 DAY	MG/L		18	2.06666	1.62589	1.27510	4.79999	.300000	75/09/23	76/12/14
00349	BOD	30 DAY	MG/L		18	8.37777	67.2606	8.20126	34.2000	1.80000	75/09/23	76/12/14
00400	PH		SU		30	7.92333	.410821	.640953	9.00000	6.80000	55/10/20	83/07/27
00403	LAB	PH	SU		4	7.60000	.100016	.316253	8.00000	7.30000	83/05/27	83/07/27
00405	CO2		MG/L		5	3.08000	3.99700	1.99925	6.10000	.600000	55/10/20	75/08/25
00410	T ALK	CACO3	MG/L		7	92.7143	2421.91	49.2129	144.000	24.0000	50/06/03	75/08/25
00440	HCO3 ION	HCO3	MG/L		7	113.143	3639.48	60.3281	176.000	29.0000	50/06/03	75/08/25
00445	CO3 ION	CO3	MG/L		1	.000000			.000000	.000000	75/08/25	75/08/25
00515	RESIDUE	DISS-105	C MG/L		1	36.0000			36.0000	36.0000	76/06/08	76/06/08
00530	RESIDUE	TOT NFLT	MG/L		1	17.0000			17.0000	17.0000	76/06/08	76/06/08
00572	BIOMASS	PERPHYTN	G/SQ M		1	3.50000			3.50000	3.50000	75/10/01	75/10/01
00573	BIOMASS	PERPHYTN	DW G/M2		1	15.0000			15.0000	15.0000	75/10/01	75/10/01
00600	TOTAL N	N	MG/L		22	.512273	.049333	.222110	.930001	.230000	75/08/25	76/12/14
00605	ORG N	N	MG/L		17	.416471	.021737	.147434	.650001	.150000	75/09/23	76/12/14
00610	NH3+NH4-	N TOTAL	MG/L		13	.039231	.001024	.032006	.100000	.010000	75/09/23	76/12/14
				K	4	.010000	-.776E-10	.000000	.010000	.010000	75/09/23	75/09/24
				TOT	17	.032353	.000932	.030522	.100000	.010000	75/09/23	76/12/14
00623	KJELDL N	DISS	MG/L		5	.306000	.038530	.196291	.560000	.110000	75/08/25	76/08/30
00624	KJELDL N	SUSP	MG/L		5	.072000	.003770	.061400	.160000	.000000	75/08/25	76/08/30
00625	TOT KJEL	N	MG/L		21	.424762	.029016	.170341	.720001	.140000	75/08/25	76/12/14
00630	NO2&NO3	N-TOTAL	MG/L		20	.104000	.007941	.089113	.310000	.010000	75/09/23	76/12/14
				K	2	.100000	-.372E-08	.000000	.100000	.100000	75/08/25	76/06/08
				TOT	22	.103636	.007186	.084771	.310000	.010000	75/08/25	76/12/14
00631	NO2&NO3	N-DISS	MG/L		3	.136667	.022033	.148436	.300000	.010000	75/12/01	76/06/08
				K	6	.100000	-.223E-08	.000000	.100000	.100000	75/08/25	83/07/27
				TOT	9	.112222	.005844	.076449	.300000	.010000	75/08/25	83/07/27
00660	ORTHOPO4	PO4	MG/L		1	.030000			.030000	.030000	75/08/25	75/08/25
00665	PHOS-TOT		MG/L P		21	.209524	.410735	.640886	3.00000	.020000	75/08/25	76/12/14
				K	1	.010000			.010000	.010000	75/12/01	75/12/01
				TOT	22	.200454	.392986	.626886	3.00000	.010000	75/08/25	76/12/14

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09239500
40 29 01.0 106 49 54.0 2
YAMPA RIVER AT STEAMBOAT SPRINGS, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0263849-0269508

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00666 PHOS-DIS		MG/L P		5	.034000	.000680	.026077	.080000	.020000	75/08/25	76/08/30
00671 PHOS-DIS	ORTHO	MG/L P		1	.010000			.010000	.010000	75/08/25	75/08/25
00681 D ORG C	C	MG/L		5	6.66000	2.52806	1.58999	8.70000	4.80000	75/08/25	76/08/30
00689 S ORG C	C	MG/L		4	5.75000	117.363	10.8334	22.0000	.300000	75/08/25	76/08/30
00900 TOT HARD	CACO3	MG/L		6	114.500	2213.50	47.0478	160.000	27.0000	50/11/09	75/08/25
00902 NC HARD	CACO3	MG/L		6	12.1667	40.5667	6.36920	19.0000	2.00000	50/11/09	75/08/25
00915 CALCIUM	CA,DISS	MG/L		10	23.7800	164.033	12.8075	39.0000	7.59999	50/11/09	83/07/27
00925 MGNSIUM	MG,DISS	MG/L		10	7.63999	22.6648	4.76076	16.0000	1.90000	50/11/09	83/07/27
00930 SODIUM	NA,DISS	MG/L		7	6.32856	15.2924	3.91055	12.0000	2.40000	55/10/20	83/07/27
00931 SODIUM	ADSBTION	RATIO		3	.400000	.010000	.100001	.500000	.300000	55/10/20	75/08/25
00932 PERCENT	SODIUM	%		2	15.0000	2.00000	1.41421	16.0000	14.0000	55/10/20	75/08/25
00933 NA+K		MG/L		4	7.02499	40.2690	6.34579	13.0000	1.10000	50/06/03	58/08/09
00935 PTSSIUM	K,DISS	MG/L		6	1.43333	.490665	.700475	2.60000	.700000	55/10/20	83/07/27
00940 CHLORIDE	TOTAL	MG/L		10	2.19999	4.62445	2.15045	6.49999	.200000	50/06/03	83/07/27
00945 SULFATE	SO4-TOT	MG/L		11	20.6818	132.442	11.5083	40.0000	5.79999	50/06/03	83/07/27
00950 FLUORIDE	F,DISS	MG/L		2	.150000	.005000	.070711	.200000	.100000	75/08/25	83/07/27
			K	3	.100000	-.186E-08	.000000	.100000	.100000	83/05/27	83/07/08
			TOT	5	.120000	.002000	.044721	.200000	.100000	75/08/25	83/07/27
00955 SILICA	DISOLVED	MG/L		9	12.1000	26.6949	5.16672	20.0000	6.59999	50/11/09	83/07/27
01000 ARSENIC	AS,DISS	UG/L		1	1.00000			1.00000	1.00000	76/08/30	76/08/30
			K	3	1.00000	.000000	.000000	1.00000	1.00000	75/12/01	76/06/08
			TOT	4	1.00000	.000000	.000000	1.00000	1.00000	75/12/01	76/08/30
01001 ARSENIC	AS,SUSP	UG/L	K	4	1.00000	.000000	.000000	1.00000	1.00000	75/12/01	76/08/30
01002 ARSENIC	AS,TOT	UG/L		1	1.00000			1.00000	1.00000	76/08/30	76/08/30
			K	3	1.00000	.000000	.000000	1.00000	1.00000	75/12/01	76/06/08
			TOT	4	1.00000	.000000	.000000	1.00000	1.00000	75/12/01	76/08/30
01003 ARSENIC	SEDMG/KG	DRY WGT		3	5.33333	25.3333	5.03322	10.0000	.000000	76/03/01	76/08/30
01025 CADMIUM	CD,DISS	UG/L	K	2	2.00000	.000000	.000000	2.00000	2.00000	76/03/01	76/06/08
			U	3	.000000	.000000	.000000	.000000	.000000	75/08/25	76/08/30
			TOT	5	.800000	1.20000	1.09544	2.00000	.000000	75/08/25	76/08/30
01026 CADMIUM	CD,SUSP	UG/L		2	8.99999	.000092	.009568	9.00000	8.99999	76/03/01	76/06/08
			K	3	10.0000	.000000	.000000	10.0000	10.0000	75/08/25	76/08/30
			TOT	5	9.60000	.300110	.547823	10.0000	8.99999	75/08/25	76/08/30
01027 CADMIUM	CD,TOT	UG/L	K	5	20.0000	.000000	.000000	20.0000	20.0000	75/08/25	76/08/30
01029 CHROMIUM	SEDMG/KG	DRY WGT		3	15.0000	75.0000	8.66025	25.0000	10.0000	76/03/01	76/08/30
01035 COBALT	CO,DISS	UG/L	K	1	2.00000			2.00000	2.00000	76/08/30	76/08/30
			U	4	.000000	.000000	.000000	.000000	.000000	75/08/25	76/06/08
			TOT	5	.400000	.800000	.894427	2.00000	.000000	75/08/25	76/08/30
01036 COBALT	CO,SUSP	UG/L	K	5	49.8000	.200195	.447432	50.0000	49.0000	75/08/25	76/08/30
01037 COBALT	CO,TOTAL	UG/L	K	5	100.000	.000000	.000000	100.000	100.000	75/08/25	76/08/30
01040 COPPER	CU,DISS	UG/L		4	2.75000	2.25000	1.50000	5.00000	2.00000	75/08/25	76/06/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09239500
40 29 01.0 106 49 54.0 2
YAMPA RIVER AT STEAMBOAT SPRINGS, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0263849-0269508

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01040 COPPER	CU,DISS	UG/L	K	1	2.00000			2.00000	2.00000	76/08/30	76/08/30
			TOT	5	2.60000	1.80001	1.34164	5.00000	2.00000	75/08/25	76/08/30
01041 COPPER	CU,SUSP	UG/L		2	8.50000	.500000	.707107	9.00000	8.00000	76/03/01	76/08/30
			K	3	6.99999	3.00010	1.73208	8.00000	5.00000	75/08/25	76/06/08
			TOT	5	7.60000	2.30005	1.51659	9.00000	5.00000	75/08/25	/6/08/30
01042 COPPER	CU,TOT	UG/L	K	5	20.0000	.000000	.000000	20.0000	20.0000	75/08/25	76/08/30
01043 COPPER	SEDMG/KG	DRY WGT		3	16.0000	76.0000	8.71780	22.0000	6.00000	76/03/01	76/08/30
01044 IRON	FE,SUSP	UG/L		5	817.999	1361764	1166.95	2899.99	190.000	75/08/25	76/08/30
01045 IRON	FE,TOT	UG/L		5	890.000	1399150	1182.86	3000.00	250.000	75/08/25	76/08/30
01046 IRON	FE,DISS	UG/L		5	66.0000	1030.00	32.0936	110.000	20.0000	75/08/25	76/08/30
01049 LEAD	PB,DISS	UG/L		2	2.00000	.000000	.000000	2.00000	2.00000	75/12/01	76/03/01
			U	3	.000000	.000000	.000000	.000000	.000000	75/08/25	76/08/30
			TOT	5	.800000	1.20000	1.09544	2.00000	.000000	75/08/25	76/08/30
01050 LEAD	PB,SUSP	UG/L	K	5	99.1999	1.20410	1.09732	100.000	98.0000	75/08/25	76/08/30
01051 LEAD	PB,TOT	UG/L	K	5	200.000	.000000	.000000	200.000	200.000	75/08/25	76/08/30
01052 LEAD	SEDMG/KG	DRY WGT		2	15.0000	50.0000	7.07107	20.0000	10.0000	76/03/01	76/08/30
			K	1	10.0000			10.0000	10.0000	76/06/08	76/06/08
			TOT	3	13.3333	33.3335	5.77352	20.0000	10.0000	76/03/01	76/08/30
01054 MANGNESE	MN,SUSP	UG/L		5	32.0000	770.000	27.7489	70.0000	.000000	75/08/25	76/08/30
01055 MANGNESE	MN	UG/L		4	65.0000	1500.00	38.7298	120.000	30.0000	75/08/25	76/08/30
			K	1	10.0000			10.0000	10.0000	76/06/08	76/06/08
			TOT	5	54.0000	1730.00	41.5933	120.000	10.0000	75/08/25	76/08/30
01056 MANGNESE	MN,DISS	UG/L		3	33.3333	233.334	15.2753	50.0000	20.0000	75/08/25	76/06/08
			K	2	10.0000	.000000	.000000	10.0000	10.0000	75/12/01	76/08/30
			TOT	5	24.0000	280.000	16.7332	50.0000	10.0000	75/08/25	76/08/30
01065 NICKEL	NI,DISS	UG/L		2	2.00000	.000000	.000000	2.00000	2.00000	75/12/01	76/03/01
			U	3	.000000	.000000	.000000	.000000	.000000	75/08/25	76/08/30
			TOT	5	.800000	1.20000	1.09544	2.00000	.000000	75/08/25	76/08/30
01066 NICKEL	NI,SUSP	UG/L		1	48.0000			48.0000	48.0000	76/03/01	76/03/01
			K	4	49.5000	1.00000	1.00000	50.0000	48.0000	75/08/25	76/08/30
			TOT	5	49.2000	1.20117	1.09598	50.0000	48.0000	75/08/25	76/08/30
01067 NICKEL	NI,TOTAL	UG/L		1	50.0000			50.0000	50.0000	76/03/01	76/03/01
			K	4	50.0000	.000000	.000000	50.0000	49.9999	75/08/25	76/08/30
			TOT	5	50.0000	.000000	.000000	50.0000	49.9999	75/08/25	76/08/30
01068 NICKEL	SEDMG/KG	DRY WGT		2	10.0000	.000000	.000000	10.0000	10.0000	76/03/01	76/08/30
			K	1	10.0000			10.0000	10.0000	76/06/08	76/06/08
			TOT	3	10.0000	.000000	.000000	10.0000	10.0000	76/03/01	76/08/30
01085 VANADIUM	V,DISS	UG/L		5	1.66000	.988000	.993982	2.60000	.400000	75/08/25	76/08/30
01090 ZINC	ZN,DISS	UG/L		1	20.0000			20.0000	20.0000	76/06/08	76/06/08
			U	4	.000000	.000000	.000000	.000000	.000000	75/08/25	76/08/30
			TOT	5	4.00000	80.0000	8.94427	20.0000	.000000	75/08/25	76/08/30

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09239500
40 29 01.0 106 49 54.0 2
YAMPA RIVER AT STEAMBOAT SPRINGS, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0263849-0269508

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01091 ZINC	ZN,SUSP	UG/L		5	8.00000	70.0000	8.36660	20.0000	.000000	75/08/25	76/08/30
01092 ZINC	ZN,TOT	UG/L		1	20.0000			20.0000	20.0000	76/03/01	76/03/01
			K	3	20.0000	.000000	.000000	20.0000	20.0000	75/08/25	76/06/08
			U	1	.000000			.000000	.000000	76/08/30	76/08/30
			TOT	5	16.0000	80.0000	8.94427	20.0000	.000000	75/08/25	76/08/30
01095 ANTIMONY	SB,DISS	UG/L	K	4	1.00000	.000000	.000000	1.00000	1.00000	75/12/01	76/08/30
01096 ANTIMONY	SB,SUSP	UG/L		4	.000000	.000000	.000000	.000000	.000000	75/12/01	76/08/30
01097 ANTIMONY	SB,TOT	UG/L	K	4	1.00000	.000000	.000000	1.00000	1.00000	75/12/01	76/08/30
01098 ANTIMONY	SEDMG/KG	DRY WGT		3	.666667	.333334	.577351	1.00000	.000000	76/03/01	76/08/30
01145 SELENIUM	SE,DISS	UG/L	K	5	1.00000	.000000	.000000	1.00000	1.00000	75/08/25	76/08/30
01146 SELENIUM	SE,SUSP	UG/L		5	.000000	.000000	.000000	.000000	.000000	75/08/25	76/08/30
01147 SELENIUM	SE,TOT	UG/L	K	5	1.00000	.000000	.000000	1.00000	1.00000	75/08/25	76/08/30
01170 FE MUD	DRY WGT	MG/KG-FE		3	13600.0	.356E+08	5973.27	18000.0	6800.00	76/03/01	76/08/30
03515 BETA-D	AS CS137	PC/L		1	1.70000			1.70000	1.70000	76/06/08	76/06/08
03516 BETA-S	AS CS137	PC/L		1	.900000			.900000	.900000	76/06/08	76/06/08
31501 TOT COLI	MFIMENDO	/100ML		4	520.999	159225	399.030	899.999	95.9999	75/09/24	76/12/14
31616 FEC COLI	MFM-FCBR	/100ML		2	157.000	13778.0	117.380	240.000	73.9999	75/09/24	76/12/13
			B	2	19.0000	241.999	15.5563	30.0000	7.99999	76/12/14	76/12/14
			TOT	4	87.9998	11021.3	104.982	240.000	7.99999	75/09/24	76/12/14
32226 CHL B	PERIPHTN	MG/M2		1	.100000			.100000	.100000	75/10/01	75/10/01
32228 CHL A	PERIPHTN	MG/M2		1	4.10000			4.10000	4.10000	75/10/01	75/10/01
39250 NAPTHAL	ENES, PC	. UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39330 ALDRIN		TOT UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39340 GAMMABHC	LINDANE	TOT.UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39350 CHLRDANE	TECH&MET	TOT UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39360 DDD	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39365 DDE	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39370 DDT	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39380 DIELDRIN		TOTUG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39390 ENDRIN		TOT UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39398 ETHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39400 TOXAPHEN		TOTUG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39410 HEPTCHLR		TOTUG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39420 HPCHLREP		TOTUG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39516 PCBS	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39530 MALATHN	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39540 PARATHN	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39570 DIAZINON	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39600 MPARATHN	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39730 2,4-D	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39740 2,4,5-T	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

09239500
40 29 01.0 106 49 54.0 2
YAMPA RIVER AT STEAMBOAT SPRINGS, CO.
08107 COLORADO ROUTT

/TYPA/AMBNT/STREAM

112WRD 14050001000
0000 CLASS 00 CSN-RSP 0263849-0269508

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
39760 SILVEX	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39786 TRITHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
39790 MTRTHION	WHL SMPL	UG/L		1	.000000			.000000	.000000	76/06/08	76/06/08
70300 RESIDUE	DISS-180	C MG/L		2	134.500	13944.5	118.087	218.000	50.9999	58/07/16	58/08/09
70301 DISS SOL	SUM	MG/L		2	188.000	2.00000	1.41421	189.000	187.000	55/10/20	75/08/25
70302 DISS SOL	TONS/DAY			4	87.1749	4057.16	63.6959	179.000	34.2000	55/10/20	75/08/25
70303 DISS SOL	TONS PER	ACRE-FT		4	.220000	.010467	.102307	.300000	.070000	55/10/20	75/08/25
70331 SUSP SED	PARTSIZE	%<.062MM		1	71.9999			71.9999	71.9999	75/06/25	75/06/25
70507 PHOS-T	ORTHO	MG/L P		17	.054118	.001088	.032988	.120000	.020000	75/09/23	76/12/14
71850 NITRATE	TOT-NO3	MG/L		5	.439999	.023000	.151658	.599999	.200000	50/11/09	58/08/09
71887 TOTAL N	AS NO3	MG/L		22	2.27272	.966851	.983286	4.10000	1.00000	75/08/25	76/12/14
71890 MERCURY	HG,DISS	UG/L	K	5	.500000	.000000	.000000	.500000	.500000	75/08/25	76/08/30
71895 MERCURY	HG,SUSP	UG/L		5	.000000	.000000	.000000	.000000	.000000	75/08/25	76/08/30
71900 MERCURY	HG,TOTAL	UG/L	K	5	.500000	.000000	.000000	.500000	.500000	75/08/25	76/08/30
71921 MERCURY	SEDMG/KG	DRY WGT		3	.120000	.004300	.065574	.180000	.050000	76/03/01	76/08/30
80030 ALPHA-D	AS U-NAT	UG/L		1	1.30000			1.30000	1.30000	76/06/08	76/06/08
80040 ALPHA-S	AS U-NAT	UG/L		1	2.30000			2.30000	2.30000	76/06/08	76/06/08
80050 BETA-D	AS SR-Y-	90, PC/L		1	1.40000			1.40000	1.40000	76/06/08	76/06/08
80060 BETA-S	AS SR-Y-	90, PC/L		1	.800000			.800000	.800000	76/06/08	76/06/08
80154 SUSP SED	CONC	MG/L		10	33.2999	795.792	28.2098	95.9999	5.99999	75/06/25	76/08/30
80155 SUSP SED	DISCHARG	TONS/DAY		10	55.3400	6486.80	80.5406	244.000	1.30000	75/06/25	76/08/30

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

000153
40 19 54.0 106 57 36.0 2
OAK CREEK BELOW TOWN OF OAK CREEK
08107 COLORADO ROUTT
COLORADO RIVER 110600
GREEN RIVER
21COL001 800419
0000 CLASS 00 CSN-RSP 0541462-0406039

/TYPA/AMBNT/STREAM

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00011	WATER	TEMP	FAHN		31	45.6935	158.772	12.6005	69.0000	33.0000	79/05/08	84/02/08
00021	AIR	TEMP	FAHN		17	45.2941	423.347	20.5754	90.0000	5.00000	81/01/13	84/02/08
00076	TURB	TRBIDMTR	HACH FTU		7	41.4000	4671.67	68.3496	190.000	5.40000	79/05/17	80/06/11
00095	CNDUCTVY	AT 25C	MICROMHO		22	616.364	27405.4	165.546	1100.00	370.000	79/05/17	84/02/08
00300	DO		MG/L		31	10.4387	3.42039	1.84943	14.4000	7.20000	79/05/08	84/02/08
00310	BOD	5 DAY	MG/L		10	2.40000	1.60001	1.26491	5.00000	1.00000	79/05/17	84/02/08
00400	PH		SU		28	7.99999	.145209	.381063	8.70000	7.10000	79/05/08	84/02/08
00410	T ALK	CACO3	MG/L		22	188.000	911.619	30.1930	240.000	120.000	79/05/17	84/02/08
00530	RESIDUE	TOT NFLT	MG/L		16	74.3750	13369.6	115.627	430.000	10.0000	79/05/17	83/11/15
				K	13	10.0000	.000000	.000000	10.0000	10.0000	80/08/12	84/02/08
				TOT	29	45.5172	8223.83	90.6853	430.000	10.0000	79/05/17	84/02/08
00556	OIL-GRSE	FREON-GR	MG/L		6	10.0000	.000000	.000000	10.0000	10.0000	82/02/23	82/12/07
				K	18	10.0000	.000000	.000000	10.0000	10.0000	80/06/11	84/02/08
				TOT	24	10.0000	.000000	.000000	10.0000	10.0000	80/06/11	84/02/08
00610	NH3+NH4-	N TOTAL	MG/L		20	.290000	.027400	.165529	.750000	.090000	79/05/17	84/02/08
				K	9	.133333	.019375	.139194	.500000	.050000	79/07/10	83/07/12
				TOT	29	.241379	.029569	.171958	.750000	.050000	79/05/17	84/02/08
00615	NO2-N	TOTAL	MG/L		1	.010000			.010000	.010000	79/05/17	79/05/17
00620	NO3-N	TOTAL	MG/L		1	.600000			.600000	.600000	79/05/17	79/05/17
00625	TOT KJEL	N	MG/L		5	1.19000	.410501	.640704	1.80000	.150000	80/02/28	83/07/12
				K	22	1.00000	.000000	.000000	1.00000	1.00000	79/07/10	84/02/08
				TOT	27	1.03518	.068811	.262319	1.80000	.150000	79/07/10	84/02/08
00630	NO2&NO3	N-TOTAL	MG/L		15	.768666	.122198	.349568	1.40000	.150000	79/07/10	84/02/08
				K	13	.500000	.000000	.000000	.500000	.500000	80/08/12	83/11/15
				TOT	28	.643928	.081981	.286323	1.40000	.150000	79/07/10	84/02/08
00665	PHOS-TOT		MG/L P		26	.198115	.007445	.086286	.470000	.061000	79/05/17	84/02/08
				K	1	.050000			.050000	.050000	82/04/27	82/04/27
				TOT	27	.192629	.007971	.089282	.470000	.050000	79/05/17	84/02/08
00723	CYANIDE	DISSOLVE	UG/L		9	.000000	.000000	.000000	.000000	.000000	79/05/08	80/10/09
				K	15	.010000	.498E-10	.000007	.010000	.010000	81/01/13	83/05/10
				TOT	24	.006250	.000024	.004945	.010000	.000000	79/05/08	83/05/10
00900	TOT HARD	CACO3	MG/L		12	328.333	6451.63	80.3220	450.000	170.000	79/05/17	84/02/08
00910	CALCIUM	CACO3	MG/L		8	206.250	5369.64	73.2778	320.000	110.000	79/05/17	80/12/09
00927	MGNSIUM	MG,TOT	MG/L		8	26.8750	99.2678	9.96333	43.0000	14.0000	79/05/17	80/12/09
00929	SODIUM	NA,TOT	MG/L		6	28.5000	127.500	11.2916	40.0000	10.0000	79/05/08	80/06/11
00931	SODIUM	ADSBTION	RATIO		5	.800000	.045001	.212133	1.00000	.500000	79/07/10	80/06/11
00937	PTSSIUM	K,TOT	MG/L		7	2.54286	.372871	.610632	3.70000	2.00000	79/05/08	83/05/10
00940	CHLORIDE	TOTAL	MG/L		7	5.42857	3.61907	1.90238	9.00000	4.00000	79/05/17	80/06/11
00945	SULFATE	SO4-TOT	MG/L		29	169.345	4351.97	65.9695	310.000	57.0000	79/05/17	84/02/08
00980	IRON	TOT REC	UG/L		26	828.846	106027	325.618	1600.00	300.000	79/05/08	84/02/08
00998	BERYLIUM	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

000153
40 19 54.0 106 57 36.0 2
OAK CREEK BELOW TOWN OF OAK CREEK
08107 COLORADO ROUTT
COLORADO RIVER 110600
GREEN RIVER
21COL001 800419
0000 CLASS 00 CSN-RSP 0541462-0406039

PARAMETER			RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00998 BERYLIUM	TOT.REC.	UG/L	K	3	50.0000	.000000	.000000	50.0000	50.0000	80/12/09	81/11/24
			TOT	6	25.0000	750.000	27.3861	50.0000	.000000	79/05/08	81/11/24
01002 ARSENIC	AS,TOT	UG/L		3	1.66667	8.33334	2.88675	5.00000	.000000	79/05/08	80/06/11
			K	6	10.0000	.000000	.000000	10.0000	10.0000	80/12/09	83/05/10
			TOT	9	7.22222	19.4445	4.40959	10.0000	.000000	79/05/08	83/05/10
01022 BORON	B,TOT	UG/L		6	125.333	5234.67	72.3510	240.000	40.0000	79/05/17	81/11/24
01034 CHROMIUM	CR,TOT	UG/L	K	1	5.00000			5.00000	5.00000	83/01/12	83/01/12
01045 IRON	FE,TOT	UG/L		2	2540.00	6919200	2630.44	4400.00	680.000	83/05/10	83/07/12
01074 NICKEL	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	3	83.3333	833.336	28.8675	100.000	50.0000	80/12/09	81/11/24
			TOT	6	41.6667	2416.67	49.1596	100.000	.000000	79/05/08	81/11/24
01079 SILVER	TOT.REC.	UG/L		4	.075000	.022500	.150000	.300000	.000000	79/05/08	83/05/10
			K	5	.200000	-.149E-07	.000000	.200000	.200000	80/12/09	82/12/07
			TOT	9	.144444	.012778	.113039	.300000	.000000	79/05/08	83/05/10
01094 ZINC(ZN)	TOT.REC.	UG/L		8	35.0000	2342.86	48.4031	150.000	.000000	79/05/08	83/05/10
			K	20	12.0000	16.8421	4.10391	20.0000	10.0000	80/08/12	84/02/08
			TOT	28	18.5714	731.217	27.0410	150.000	.000000	79/05/08	84/02/08
01104 ALUMINUM	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	3	1166.67	83334.0	288.676	1500.00	1000.00	80/12/09	81/11/24
			TOT	6	583.333	441667	664.580	1500.00	.000000	79/05/08	81/11/24
01113 CADIUM T	OT.REC.	UG/L		9	.455555	.630278	.793900	2.50000	.000000	79/05/08	83/05/10
			K	19	.299999	.529E-07	.000230	.300000	.300000	80/08/12	84/02/08
			TOT	28	.349999	.192222	.438432	2.50000	.000000	79/05/08	84/02/08
01114 LEAD(PB)	TOT.REC.	UG/L		13	4.30769	15.8974	3.98716	12.0000	.000000	79/05/08	83/09/08
			K	15	5.00000	.000000	.000000	5.00000	5.00000	80/08/12	84/02/08
			TOT	28	4.67857	7.18916	2.68126	12.0000	.000000	79/05/08	84/02/08
01118 CHRMIUM	TOT.REC.	UG/L		6	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	15	5.00000	.000000	.000000	5.00000	5.00000	80/08/12	83/03/08
			TOT	21	3.57143	5.35715	2.31455	5.00000	.000000	79/05/08	83/03/08
01119 COPPER	TOT.REC.	UG/L		10	5.30000	35.7889	5.98238	14.0000	.000000	79/05/08	83/05/10
			K	18	5.00000	.000000	.000000	5.00000	5.00000	80/08/12	84/02/08
			TOT	28	5.10714	11.9511	3.45703	14.0000	.000000	79/05/08	84/02/08
01 23 MNGANESE	TOT.REC.	UG/L		25	140.800	3257.67	57.0760	300.000	.000000	79/05/08	84/02/08
			K	3	50.0000	.000000	.000000	50.0000	50.0000	81/12/10	82/10/12
			TOT	28	131.071	3713.63	60.9395	300.000	.000000	79/05/08	84/02/08
01147 SELENIUM	SE,TOT	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
			K	3	2.00000	.000000	.000000	2.00000	2.00000	80/12/09	81/11/24
			TOT	6	1.00000	1.20000	1.09544	2.00000	.000000	79/05/08	81/11/24
02626 INVALID	PAR	NUMBER		1	.999E+20			.999E+20	.999E+20	82/08/18	82/08/18
22703 U-NAT	DISOLVED	UG/L		7	1.55428	.643964	.802474	2.00000	.000000	79/05/08	83/05/10
31615 FEC COLI	MPNECMED	/100ML		25	1677.24	8182139	2860.44	9300.00	4.00000	79/05/08	84/02/08

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

000153
40 19 54.0 106 57 36.0 2
OAK CREEK BELOW TOWN OF OAK CREEK
08107 COLORADO ROUTT
COLORADO RIVER 110600
GREEN RIVER
21COL001 800419
0000 CLASS 00 CSN-RSP 0541462-0406039

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
31615 FEC COLI	MPNECMED	/100ML		K	2	3.00000	.000000	.000000	3.00000	3.00000	81/01/13	81/11/24
				TOT	27	1553.22	7752393	2784.31	9300.00	3.00000	79/05/08	84/02/08
70300 RESIDUE	DISS-180	C	MG/L		29	441.379	14762.5	121.501	660.000	190.000	79/05/17	84/02/08
71900 MERCURY	HG,TOTAL		UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
				K	6	.500000	.000000	.000000	.500000	.500000	80/12/09	83/05/10
				TOT	9	.333333	.062500	.250000	.500000	.000000	79/05/08	83/05/10

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 198.20

000088
40 23 00.0 106 49 00.0 4
YAMPA ABOVE OAK CREEK CONFLUENCE
08107 COLORADO ROUTT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050001000
0000 CLASS 00 CSN-RSP 0041247-0405681

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00011	WATER	TEMP	FAHN		74	43.7689	137.994	11.7471	73.0000	32.0000	70/11/17	84/02/08
00021	AIR	TEMP	FAHN		18	45.2778	416.096	20.3984	90.0000	5.00000	81/01/13	84/02/08
00042	ALTITUDE	FEET	AB MSL		1	6700.00			6700.00	6700.00	01/01/01	01/01/01
00076	TURB	TRBIDMTR	HACH FTU		47	16.8404	463.899	21.5383	98.0000	2.40000	70/11/17	80/06/11
00095	CNDUCTVY	AT 25C	MICROMHO		66	289.454	8778.48	93.6935	750.000	75.0000	70/11/17	84/02/08
00096	SALINITY	AT 25C	MG/ML		1	280.000			280.000	280.000	77/01/12	77/01/12
00300	DO		MG/L		55	10.8981	3.79608	1.94835	15.0000	6.80000	73/03/12	84/02/08
00310	BOD	5 DAY	MG/L		41	2.23902	1.79844	1.34106	6.00000	1.00000	70/11/17	84/02/08
				K	3	1.00000	.000000	.000000	1.00000	1.00000	74/08/14	83/09/08
				L	1	9.00000			9.00000	9.00000	75/01/15	75/01/15
				TOT	45	2.30666	2.77382	1.66548	9.00000	1.00000	70/11/17	84/02/08
00400	PH		SU		66	8.16206	.336839	.580378	9.30000	6.80000	70/11/17	84/02/08
00410	T ALK	CACO3	MG/L		24	111.542	977.742	31.2689	150.000	44.0000	78/02/07	84/02/08
00500	RESIDUE	TOTAL	MG/L		8	268.250	12340.8	111.089	518.000	188.000	74/04/03	75/09/24
00505	RESIDUE	TOT VOL	MG/L		8	35.7500	4439.92	66.6328	197.000	3.00000	70/11/17	73/09/25
00530	RESIDUE	TOT NFLT	MG/L		43	42.9535	4782.28	69.1541	315.000	.000000	70/11/17	83/11/15
				K	23	9.17396	7.51302	2.74099	10.0000	.001000	76/10/26	84/02/08
				TOT	66	31.1818	3355.69	57.9283	315.000	.000000	70/11/17	84/02/08
00545	RESIDUE	SETTLBLE	ML/L		2	.550000	.125000	.353554	.800000	.300000	71/03/08	72/04/06
				K	6	.100000	-.223E-08	.000000	.100000	.100000	70/11/17	73/05/07
				TOT	8	.212500	.061250	.247487	.800000	.100000	70/11/17	73/05/07
00556	OIL-GRSE	FREON-GR	MG/L		5	10.0000	.000000	.000000	10.0000	10.0000	82/02/23	82/12/07
				K	17	8.41176	12.5074	3.53658	10.0000	1.00000	80/06/11	84/02/08
				TOT	22	8.77273	9.99352	3.16125	10.0000	1.00000	80/06/11	84/02/08
00610	NH3+NH4-	N TOTAL	MG/L		45	.144333	.022243	.149140	.700000	.000000	70/11/17	82/08/18
				K	23	.141739	.020706	.143896	.500000	.010000	79/07/10	84/02/08
				TOT	68	.143455	.021408	.146313	.700000	.000000	70/11/17	84/02/08
00615	NO2-N	TOTAL	MG/L		39	.009077	.000295	.017165	.100000	.000000	70/11/17	79/05/08
				K	1	.003000			.003000	.003000	79/03/20	79/03/20
				TOT	40	.008925	.000288	.016971	.100000	.000000	70/11/17	79/05/08
00620	NO3-N	TOTAL	MG/L		40	.381750	.214671	.463326	2.50000	.000000	70/11/17	79/05/08
00625	TOT KJEL	N	MG/L	K	27	1.00000	.000000	.000000	1.00000	1.00000	79/07/10	84/02/08
00630	NO2&NO3	N-TOTAL	MG/L		4	.137500	.005625	.075000	.250000	.100000	79/07/10	80/04/23
				K	24	.481250	.008438	.091856	.500000	.050000	79/09/19	84/02/08
				TOT	28	.432143	.022818	.151055	.500000	.050000	79/07/10	84/02/08
00650	T PO4	PO4	MG/L		13	.157692	.015353	.123906	.400000	.000000	70/11/17	73/09/25
00665	PHOS-TOT		MG/L P		31	.068387	.004667	.068318	.240000	.000000	74/04/03	84/02/08
				K	17	.153235	.039428	.198564	.500000	.005000	79/07/10	83/11/15
				TOT	48	.098437	.018083	.134473	.500000	.000000	74/04/03	84/02/08
00723	CYANIDE	DISSOLVE	UG/L		46	.013848	.007833	.088503	.600000	.000000	70/11/17	80/12/09
				K	17	.038529	.014143	.118924	.500000	.005000	78/12/12	83/05/10

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

000088
40 23 00.0 106 49 00.0 4
YAMPA ABOVE OAK CREEK CONFLUENCE
08107 COLORADO ROUTT
COLORADO RIVER 110691
GREEN RIVER
21COL001 14050001000
0000 CLASS 00 CSN-RSP 0041247-0405681

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 198.20

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
00723	CYANIDE	DISSOLVE	UG/L	TOT	63	.020508	.009457	.097246	.600000	.000000	70/11/17	83/05/10
00900	TOT HARD	CACO3	MG/L		51	148.333	2439.92	49.3955	352.000	28.0000	70/11/17	84/02/08
00910	CALCIUM	CACO3	MG/L		46	103.326	1805.75	42.4941	320.000	20.0000	70/11/17	80/12/09
00927	MGNSIUM	MG,TOT	MG/L		46	11.9783	23.6219	4.86023	25.0000	2.00000	70/11/17	80/12/09
00929	SODIUM	NA,TOT	MG/L		42	9.40476	20.7834	4.55889	25.0000	3.00000	70/11/17	80/04/23
				K	4	7.50000	8.33333	2.88675	10.0000	5.00000	79/01/16	80/06/11
				TOT	46	9.23913	19.7860	4.44815	25.0000	3.00000	70/11/17	80/06/11
00931	SODIUM	ADSBTION	RATIO		45	.322222	.015404	.124113	.800000	.200000	70/11/17	80/06/11
00937	PTSSIUM	K,TOT	MG/L		8	2.08750	.238390	.488252	3.00000	1.20000	78/02/07	83/05/10
				K	1	1.00000			1.00000	1.00000	80/06/11	80/06/11
				TOT	9	1.96667	.340002	.583097	3.00000	1.00000	78/02/07	83/05/10
00940	CHLORIDE	TOTAL	MG/L		47	6.87234	113.070	10.6335	76.0000	1.00000	70/11/17	80/06/11
				K	1	3.00000			3.00000	3.00000	79/11/07	79/11/07
				TOT	48	6.79167	110.977	10.5346	76.0000	1.00000	70/11/17	80/06/11
00945	SULFATE	SO4-TOT	MG/L		66	36.7576	232.249	15.2397	85.0000	9.00000	70/11/17	84/02/08
				K	1	10.0000			10.0000	10.0000	83/03/08	83/03/08
				TOT	67	36.3582	239.417	15.4731	85.0000	9.00000	70/11/17	84/02/08
00951	FLUORIDE	F,TOTAL	MG/L		31	.269354	.029446	.171599	.800000	.100000	70/11/17	77/07/20
				K	1	.100000			.100000	.100000	76/06/16	76/06/16
				TOT	32	.264062	.029393	.171443	.800000	.100000	70/11/17	77/07/20
00980	IRON	TOT REC	UG/L		65	389.385	185911	431.174	2600.00	.000000	70/11/17	84/02/08
				K	1	100.000			100.000	100.000	81/12/09	81/12/09
				TOT	66	385.000	184320	429.325	2600.00	.000000	70/11/17	84/02/08
00998	BERYLIUM	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
				K	3	50.0000	.000000	.000000	50.0000	50.0000	80/12/09	81/11/24
				TOT	6	25.0000	750.000	27.3861	50.0000	.000000	79/05/08	81/11/24
01002	ARSENIC	AS,TOT	UG/L		33	.303030	1.46780	1.21153	5.00000	.000000	70/11/17	80/06/11
				K	5	10.0000	.000000	.000000	10.0000	10.0000	80/12/09	83/05/10
				TOT	38	1.57895	12.3044	3.50776	10.0000	.000000	70/11/17	83/05/10
01022	BORON	B,TOT	UG/L		36	32.7222	1781.06	42.2026	150.000	.000000	70/11/17	81/11/24
				K	2	50.0000	200.000	14.1421	60.0000	40.0000	80/06/11	80/12/09
				TOT	38	33.6316	1705.48	41.2975	150.000	.000000	70/11/17	81/11/24
01032	CHROMIUM	HEX-VAL	UG/L		25	.000000	.000000	.000000	.000000	.000000	70/11/17	77/01/12
01045	IRON	FE,TOT	UG/L		1	670.000			670.000	670.000	83/05/10	83/05/10
01074	NICKEL	TOT.REC.	UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
				K	4	87.5000	625.000	25.0000	100.000	50.0000	78/12/12	81/11/24
				TOT	7	50.0000	2500.00	50.0000	100.000	.000000	78/12/12	81/11/24
01079	SILVER	TOT.REC.	UG/L		15	.026667	.010667	.103280	.400000	.000000	70/11/17	83/05/10
				K	4	.200000-	.198E-07	.000000	.200000	.200000	80/12/09	82/12/07
				TOT	19	.063158	.013567	.116479	.400000	.000000	70/11/17	83/05/10
01094	ZINC(ZN)	TOT.REC.	UG/L		48	57.3125	48213.9	219.577	1430.00	.000000	70/11/17	83/01/12

STORET RETRIEVAL DATE 84/05/31 - INVENT - VERSION OF SEP. 1981

RETRIEVAL FOR DAVE RUITER

000088
40 23 00.0 106 49 00.0 4
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08107 COLORADO ROUTT
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21COL001 14050001000
0000 CLASS 00 CSN-RSP 0041247-0405681

/TYPA/AMBNT/STREAM

INDEX 1101000 010670 02380
MILES 0929.90 0342.20 198.20

PARAMETER				RMK	NUMBER	MEAN	VARIANCE	STAN DEV	MAXIMUM	MINIMUM	BEG DATE	END DATE
01094 ZINC(ZN)	TOT.REC.		UG/L	K	17	12.3529	19.1177	4.37238	20.0000	10.0000	80/08/12	84/02/08
				TOT	65	45.5538	35808.4	189.231	1430.00	.000000	70/11/17	84/02/08
01104 ALUMINUM	TOT.REC.		UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
				K	4	1125.00	62500.0	250.000	1500.00	1000.00	78/12/12	81/11/24
				TOT	7	642.857	392858	626.784	1500.00	.000000	78/12/12	81/11/24
01113 CADIUM T	OT.REC.		UG/L		60	.851665	2.76186	1.66188	7.40000	.000000	70/11/17	84/02/08
				K	4	.300000	-.596E-07	.000000	.300000	.300000	80/10/09	83/11/15
				TOT	64	.817186	2.60462	1.61388	7.40000	.000000	70/11/17	84/02/08
01114 LEAD(PB)	TOT.REC.		UG/L		46	3.65217	110.365	10.5055	60.0000	.000000	70/11/17	83/03/08
				K	20	5.20000	.800010	.894433	9.00000	5.00000	78/12/12	84/02/08
				TOT	66	4.12121	77.1543	8.78375	60.0000	.000000	70/11/17	84/02/08
01118 CHRMIUM	TOT.REC.		UG/L		7	.000000	.000000	.000000	.000000	.000000	76/08/24	77/11/16
01119 COPPER	TOT.REC.		UG/L		48	3.02083	35.8081	5.98398	32.0000	.000000	70/11/17	81/12/09
				K	19	5.05263	.052639	.229433	6.00000	5.00000	78/12/12	84/02/08
				TOT	67	3.59701	26.3654	5.13473	32.0000	.000000	70/11/17	84/02/08
01123 MNGANESE	TOT.REC.		UG/L		60	50.5333	3648.02	60.3988	220.000	.000000	70/11/17	84/02/08
				K	4	50.0000	.000000	.000000	50.0000	50.0000	81/05/19	83/11/15
				TOT	64	50.5000	3416.41	58.4501	220.000	.000000	70/11/17	84/02/08
01129 MOLBDNUM	TOT.REC.		UG/L		21	2.38095	29.0476	5.38958	20.0000	.000000	71/03/08	77/07/20
01147 SELENIUM	SE,TOT		UG/L		26	.115385	.186154	.431455	2.00000	.000000	70/11/17	80/06/11
				K	4	2.75000	2.25000	1.50000	5.00000	2.00000	78/12/12	81/11/24
				TOT	30	.466667	1.22299	1.10589	5.00000	.000000	70/11/17	81/11/24
01503 ALPHA	DISOLVED		PC/L		12	18.4500	129.550	11.3820	50.7000	9.00000	71/01/11	76/12/14
01504 ALPHA-D	ERROR		PC/L		12	9.25833	6.75177	2.59842	15.0000	5.60000	71/01/11	76/12/14
02626 INVALID	PAR		NUMBER		1	.999E+20			.999E+20	.999E+20	82/08/18	82/08/18
03501 BETA	TOTAL		PC/L		1	9.00000			9.00000	9.00000	78/04/17	78/04/17
03503 BETA	DISOLVED		PC/L		9	14.1889	20.3437	4.51040	20.0000	6.30000	70/12/01	77/09/13
03504 BETA-D	ERROR		PC/L		9	10.6333	2.33759	1.52892	14.3000	9.10000	70/12/01	77/09/13
22703 U-NAT	DISOLVED		UG/L		6	29.2217	4756.86	68.9700	170.000	.000000	79/05/08	83/09/08
31505 TOT COLI	MPN CONF		/100ML		41	1194.92	.219E+08	4680.22	30000.0	2.20000	70/11/17	78/04/17
31615 FEC COLI	MPNECMED		/100ML		63	59.9936	10046.5	100.232	430.000	2.20000	70/11/17	84/02/08
				K	7	2.65714	.182874	.427638	3.00000	2.20000	71/03/08	81/12/09
				TOT	70	54.2600	9327.42	96.5786	430.000	2.20000	70/11/17	84/02/08
38260 MBAS			MG/L		30	.000000	.000000	.000000	.000000	.000000	70/11/17	77/09/13
70300 RESIDUE	DISS-180	C	MG/L		66	196.924	3834.95	61.9270	492.000	60.0000	70/11/17	84/02/09
				K	1	176.000			176.000	176.000	73/05/07	73/05/07
				TOT	67	196.612	3783.38	61.5092	492.000	60.0000	70/11/17	84/02/08
71900 MERCURY	HG,TOTAL		UG/L		3	.000000	.000000	.000000	.000000	.000000	79/05/08	80/06/11
				K	5	.500000	.000000	.000000	.500000	.500000	80/12/09	83/05/10
				TOT	8	.312500	.066964	.258775	.500000	.000000	79/05/08	83/05/10

APPENDIX E
WATER QUALITY SUMMARY FIGURES

The water quality summary figures are based on all the available data within the study area. A total of 22 parameters were selected to best represent the parameters that are of potential concern within the oil shale region. Mean, maximum, minimum and mean plus and minus 1 standard deviation are plotted for each station which had data collected between 1 January 1978 and 31 December 1983. The stations are arranged in an upstream direction within the basin. The station numbers correspond to the station numbers on the associated basin figure.

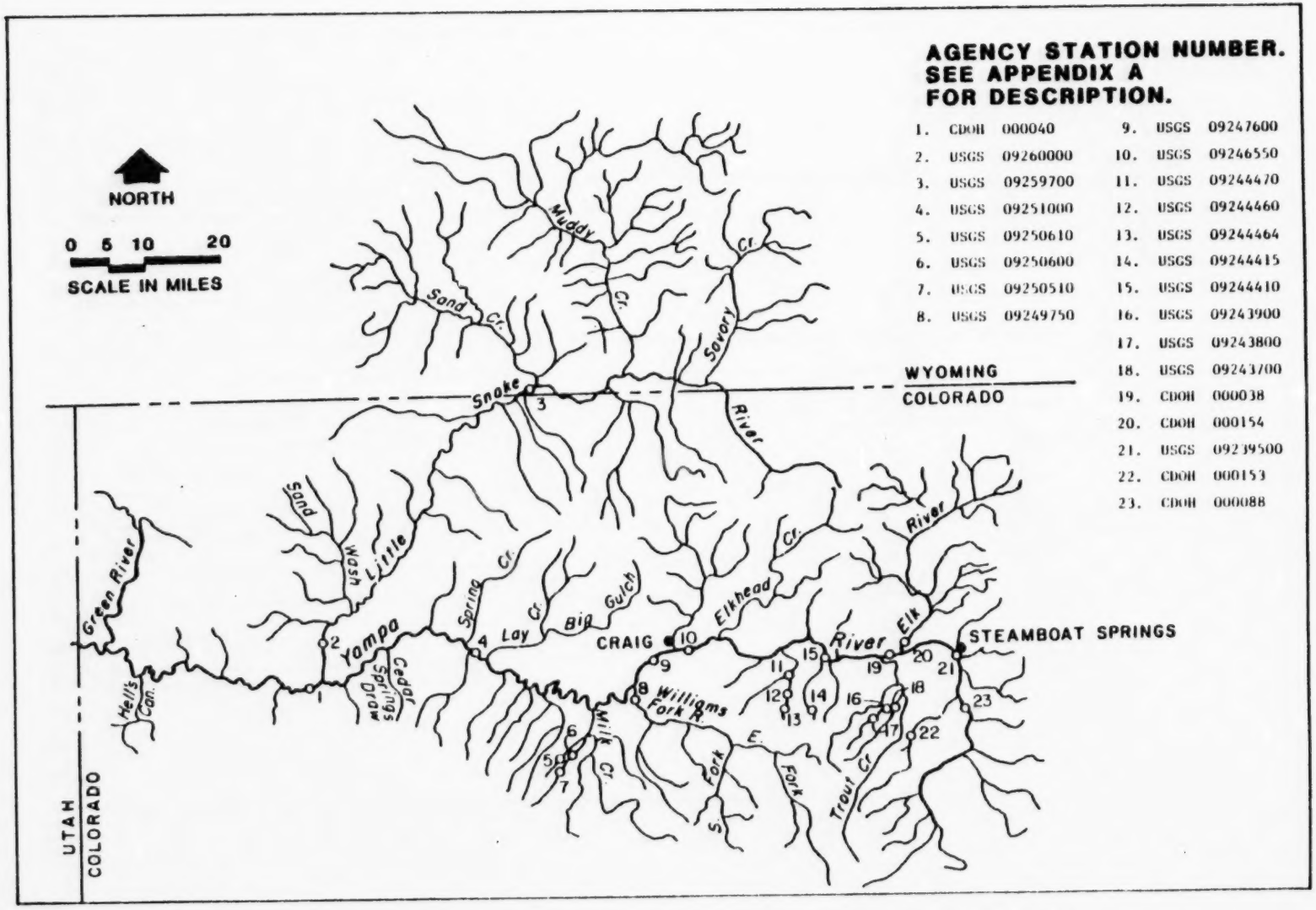
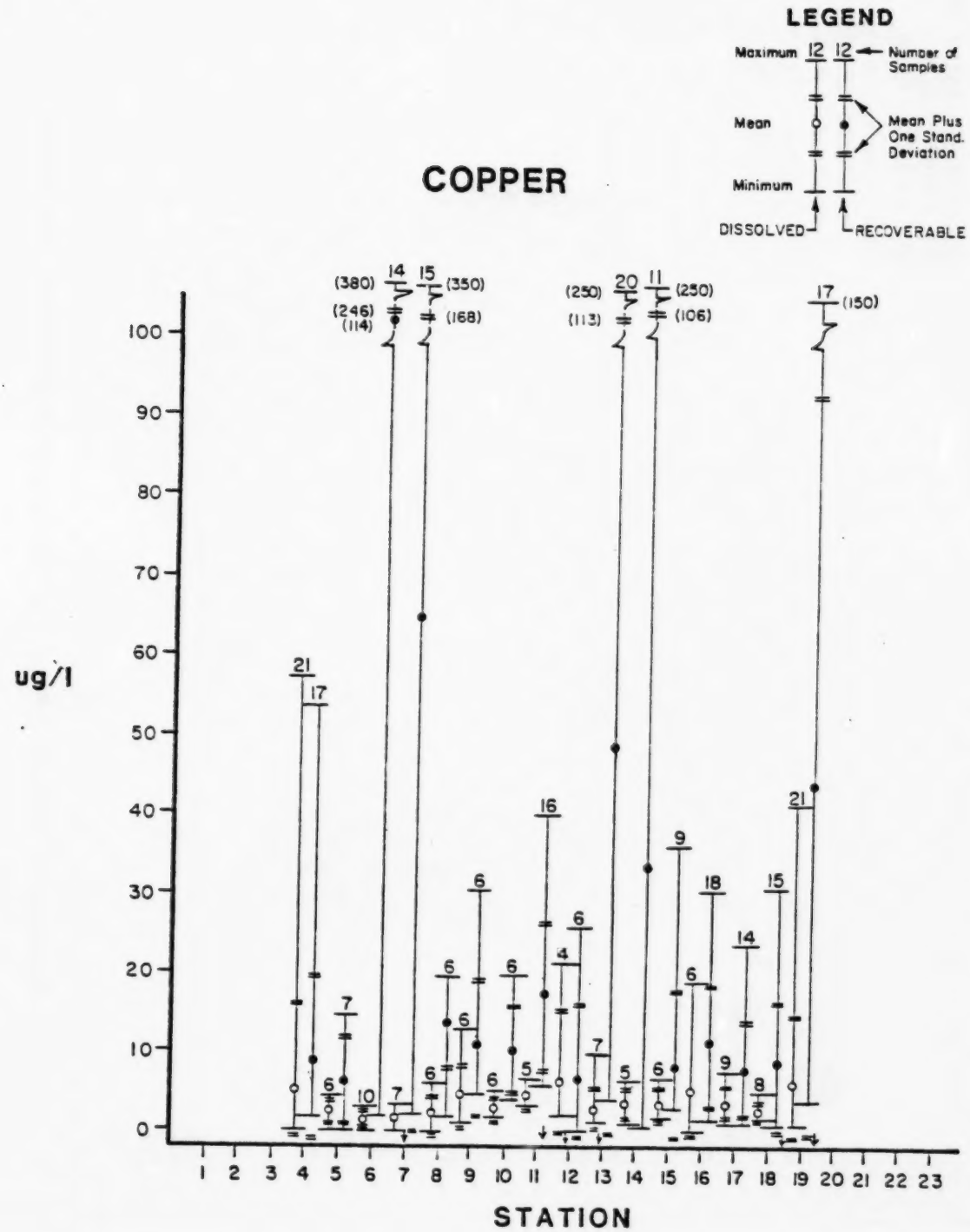
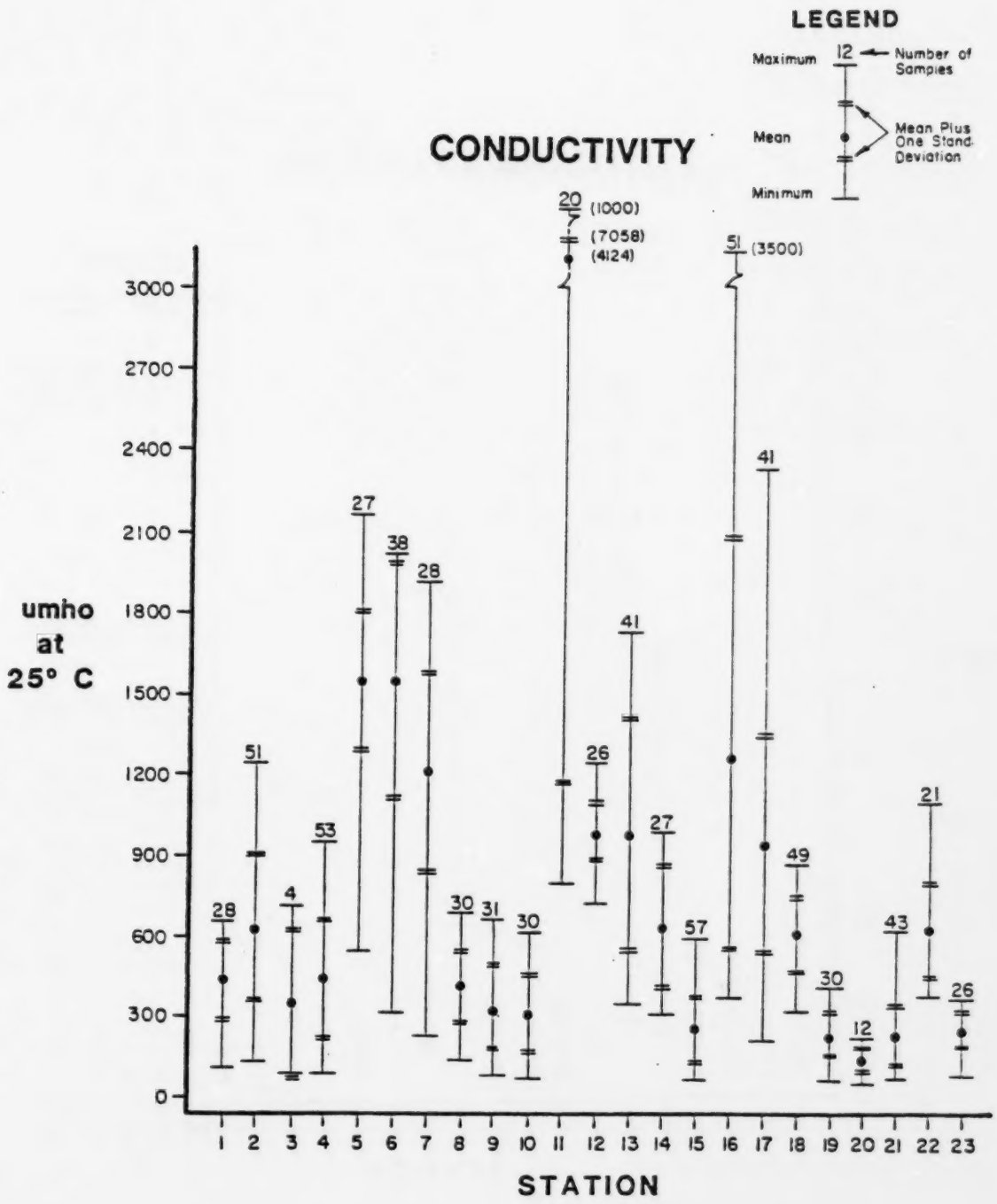
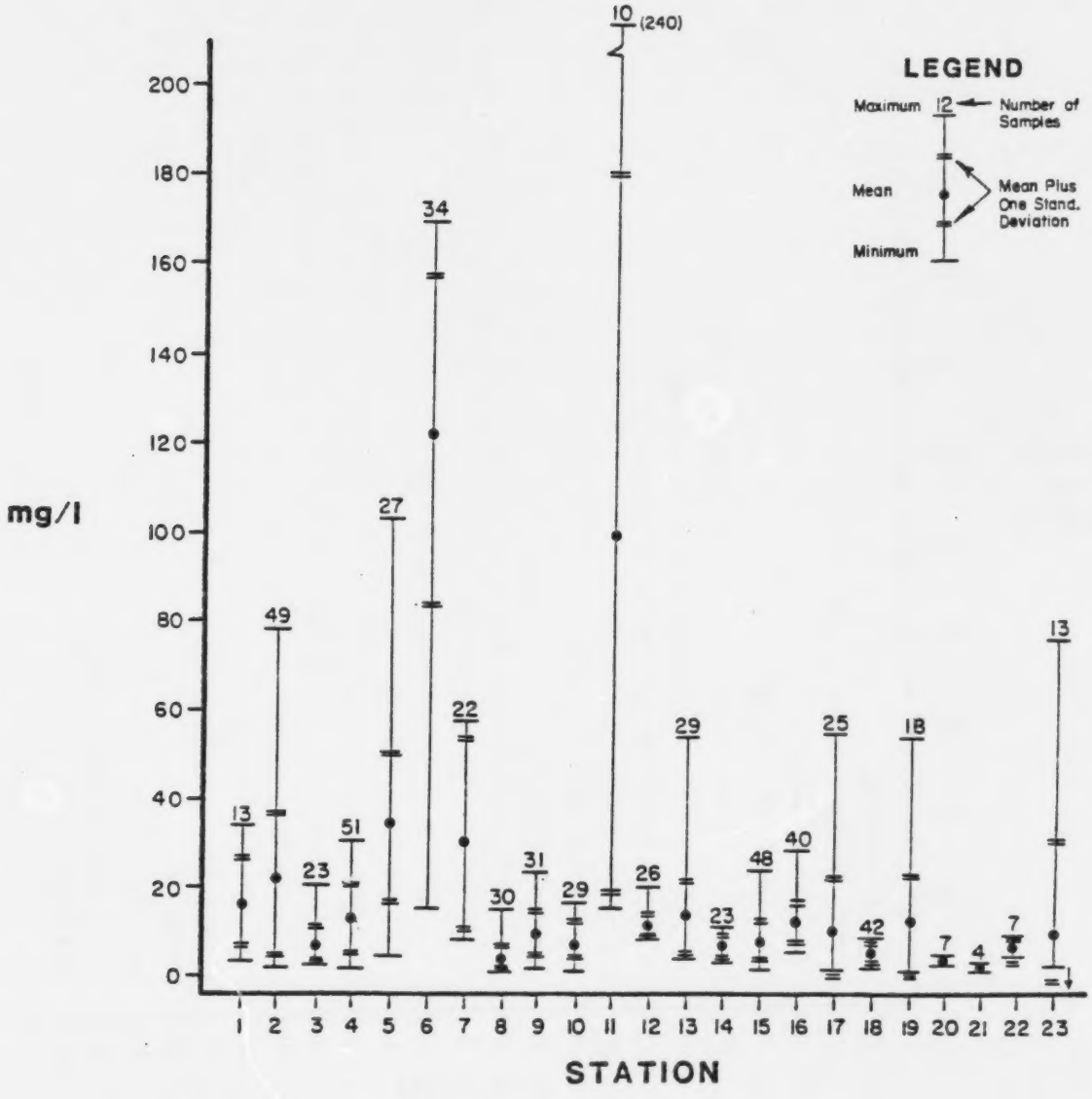


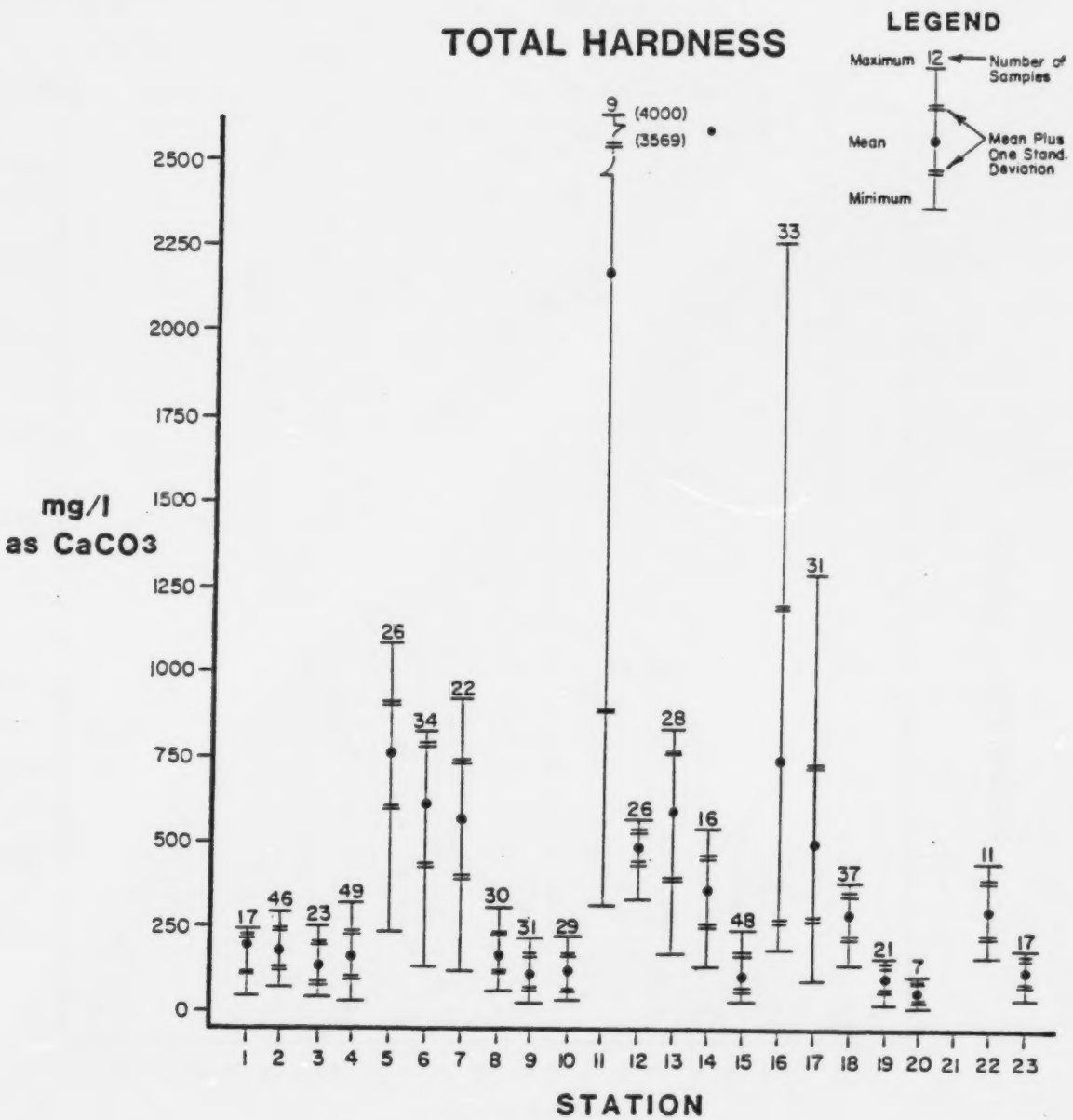
FIGURE E-1. LOCATION OF WATER QUALITY SUMMARY STATIONS.

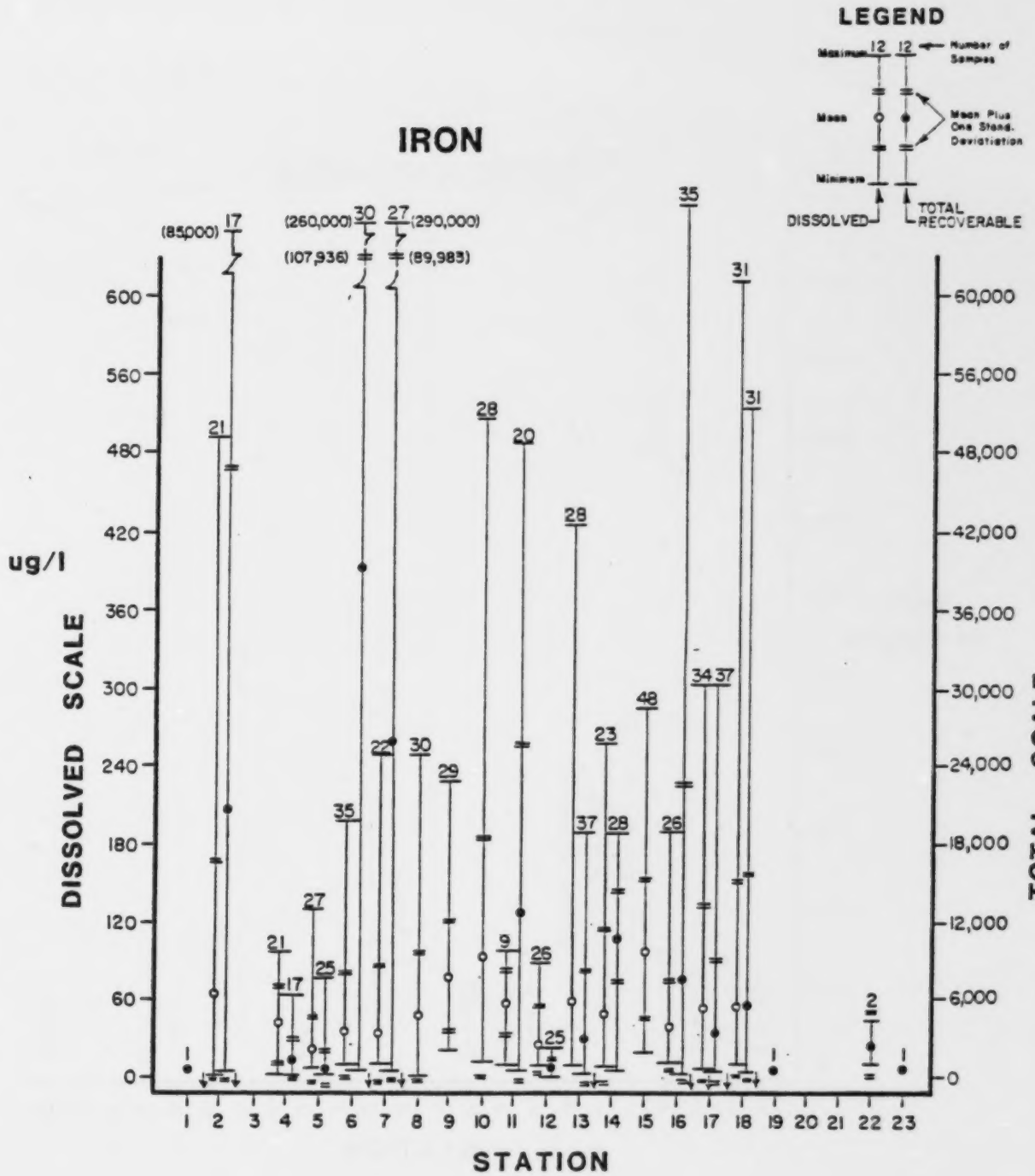

LEGEND
Maximum
Mean
Minimum
Number of Samples
Mean Plus One Stand. Deviation
DISSOLVED
RECOVERABLE
COPPER
ug/l
STATION

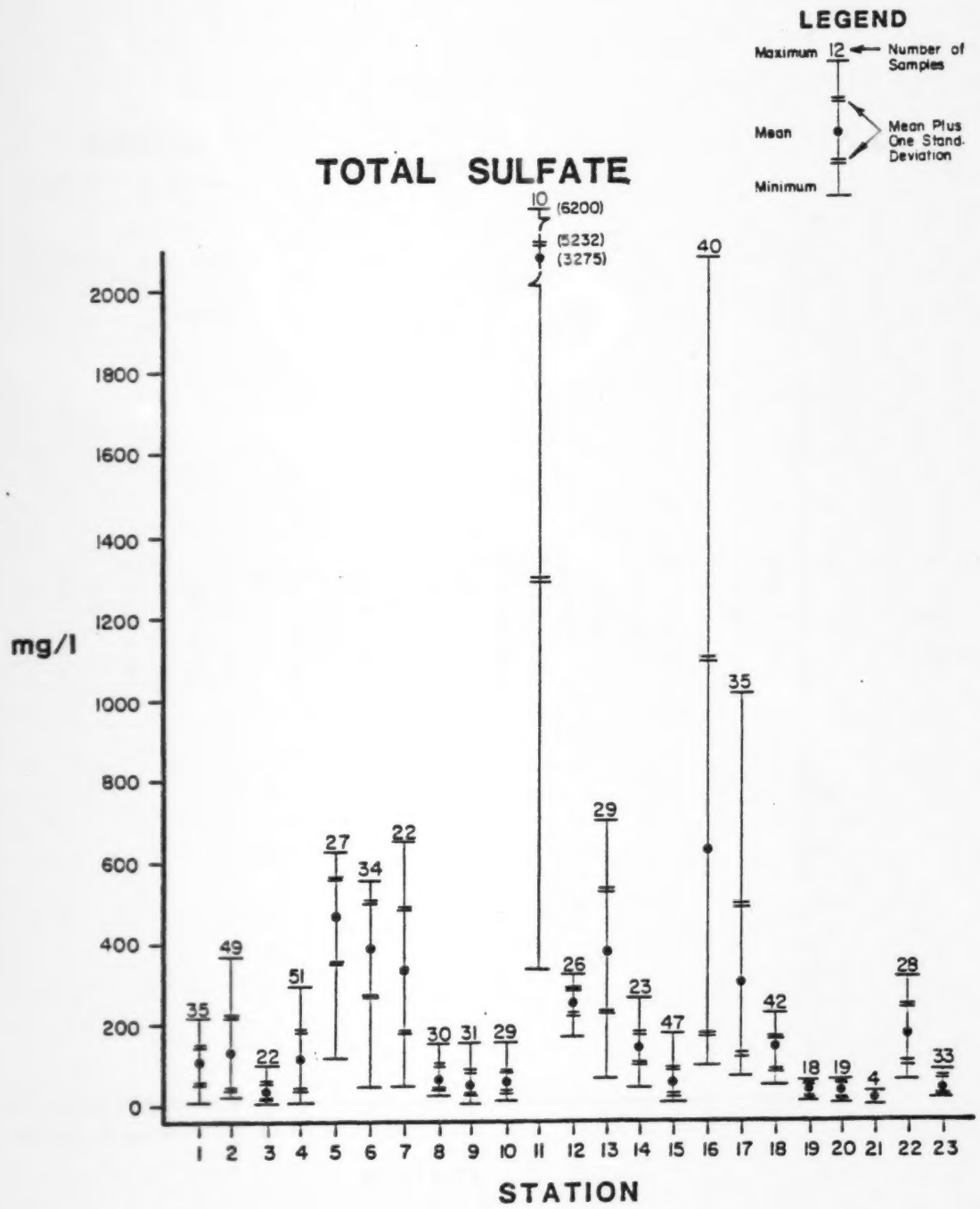

LEGEND
Maximum
12
Number of Samples
Mean
Mean Plus One Stand. Deviation
Minimum
CONDUCTIVITY
umho at 25° C
3000
2700
2400
2100
1800
1500
1200
900
600
300
0
20 (1000)
(7058)
(4124)
51 (3500)
28
51
4
53
27
38
28
30
31
30
26
41
27
57
41
49
30
12
43
21
26
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
STATION

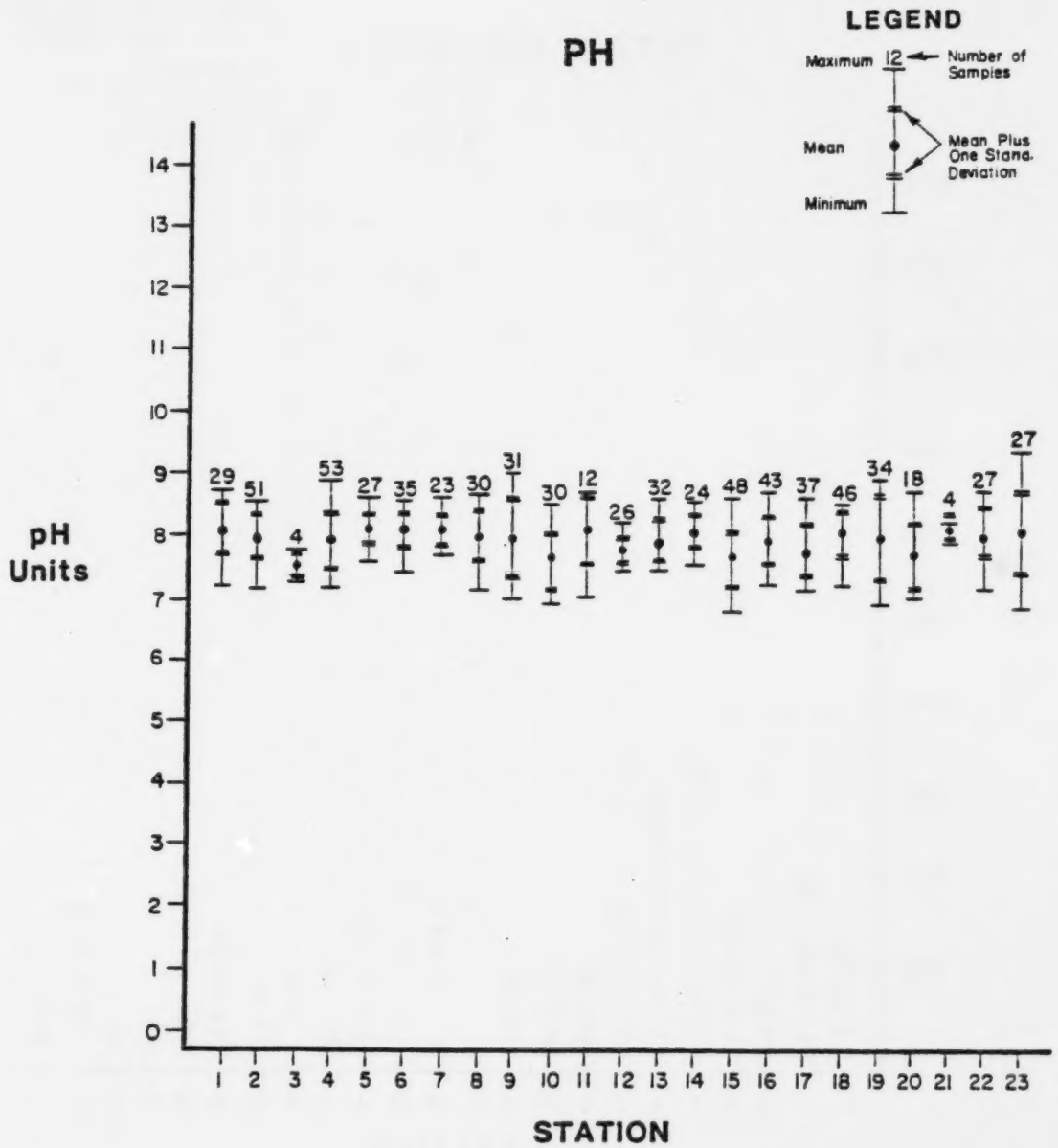
TOTAL CHLORIDE

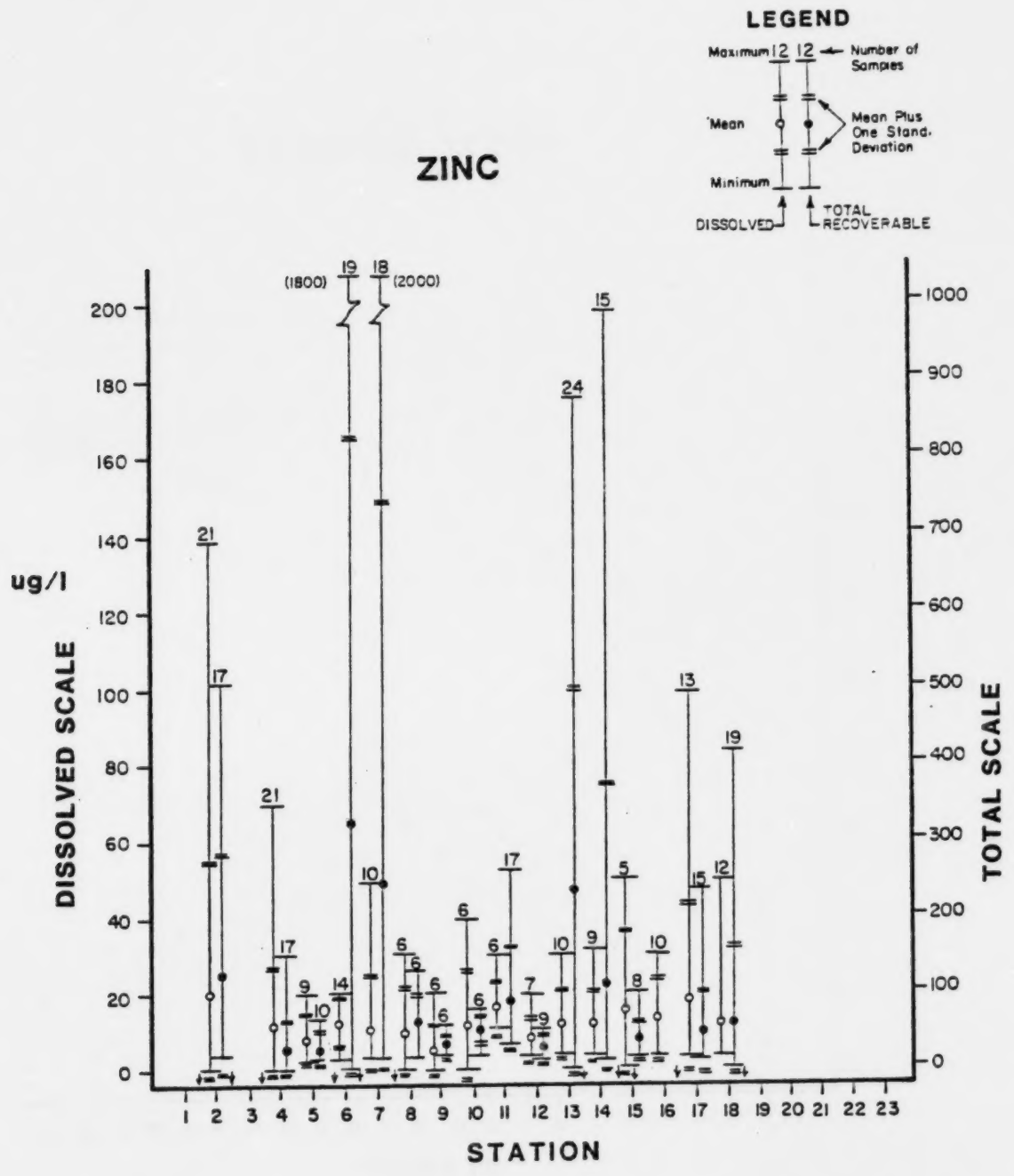



TOTAL HARDNESS
LEGEND
Maximum
12
Number of Samples
Mean
Mean Plus One Stand. Deviation
Minimum
mg/l as CaCO3
2500
2250
2000
1750
1500
1250
1000
750
500
250
0
9
(4000)
(3569)
17
46
23
49
26
34
22
30
31
29
26
28
16
48
33
31
37
21
7
11
17
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
STATION

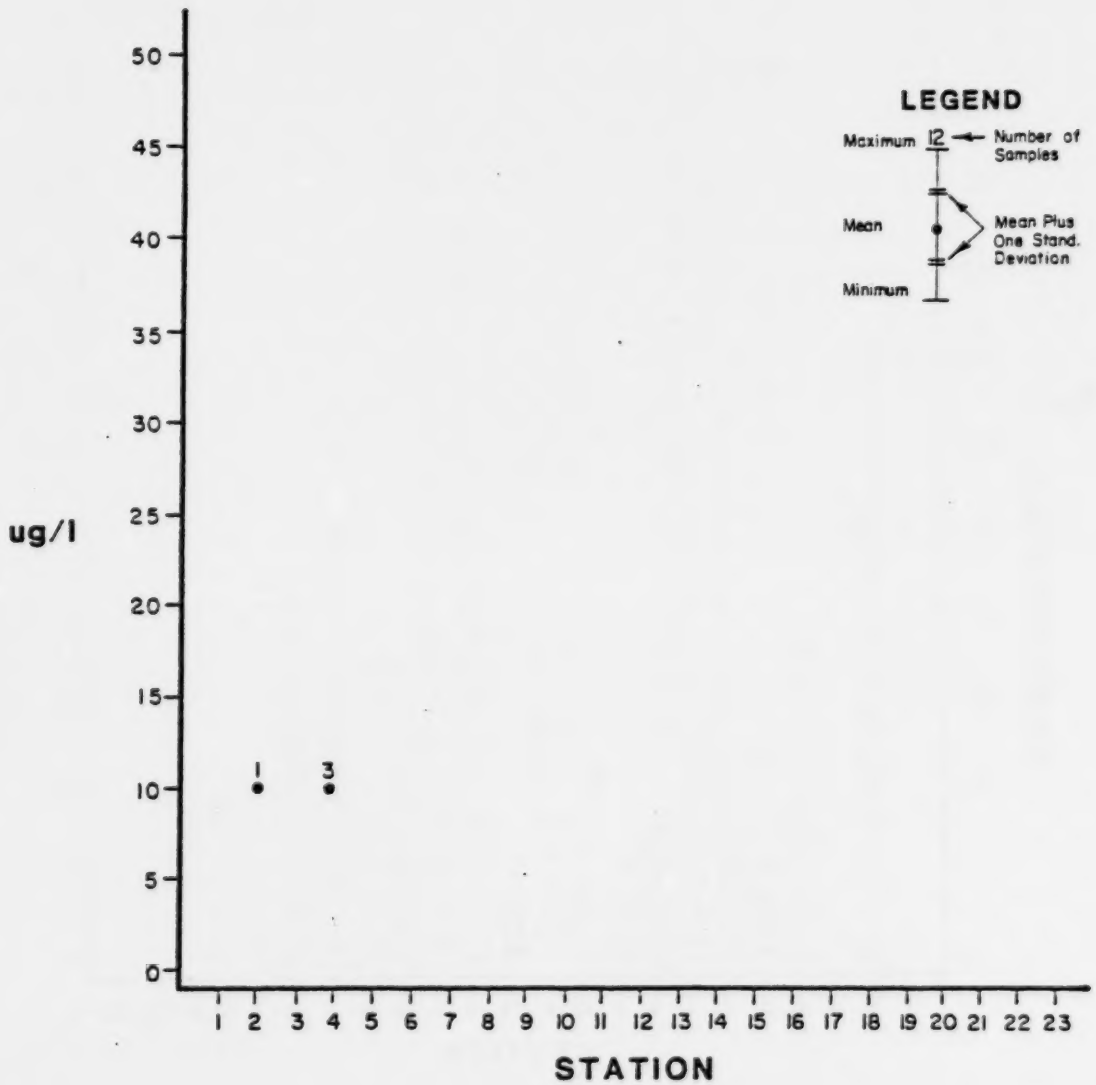

IRON
LEGEND
Maximum
Mean
Minimum
Number of Samples
Mean Plus One Stand. Deviation
DISSOLVED
TOTAL RECOVERABLE
ug/l
DISSOLVED SCALE
TOTAL SCALE
STATION
(85,000)
(260,000)
(107,936)
(290,000)
(89,983)


LEGEND
Maximum 12 ← Number of Samples
Mean
Mean Plus One Stand. Deviation
Minimum
TOTAL SULFATE
10 (6200)
(5232)
(3275)
mg/l
2000
1800
1600
1400
1200
1000
800
600
400
200
0
35
49
22
51
27
34
22
30
31
29
26
29
23
47
40
35
42
18
19
4
28
33
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
STATION

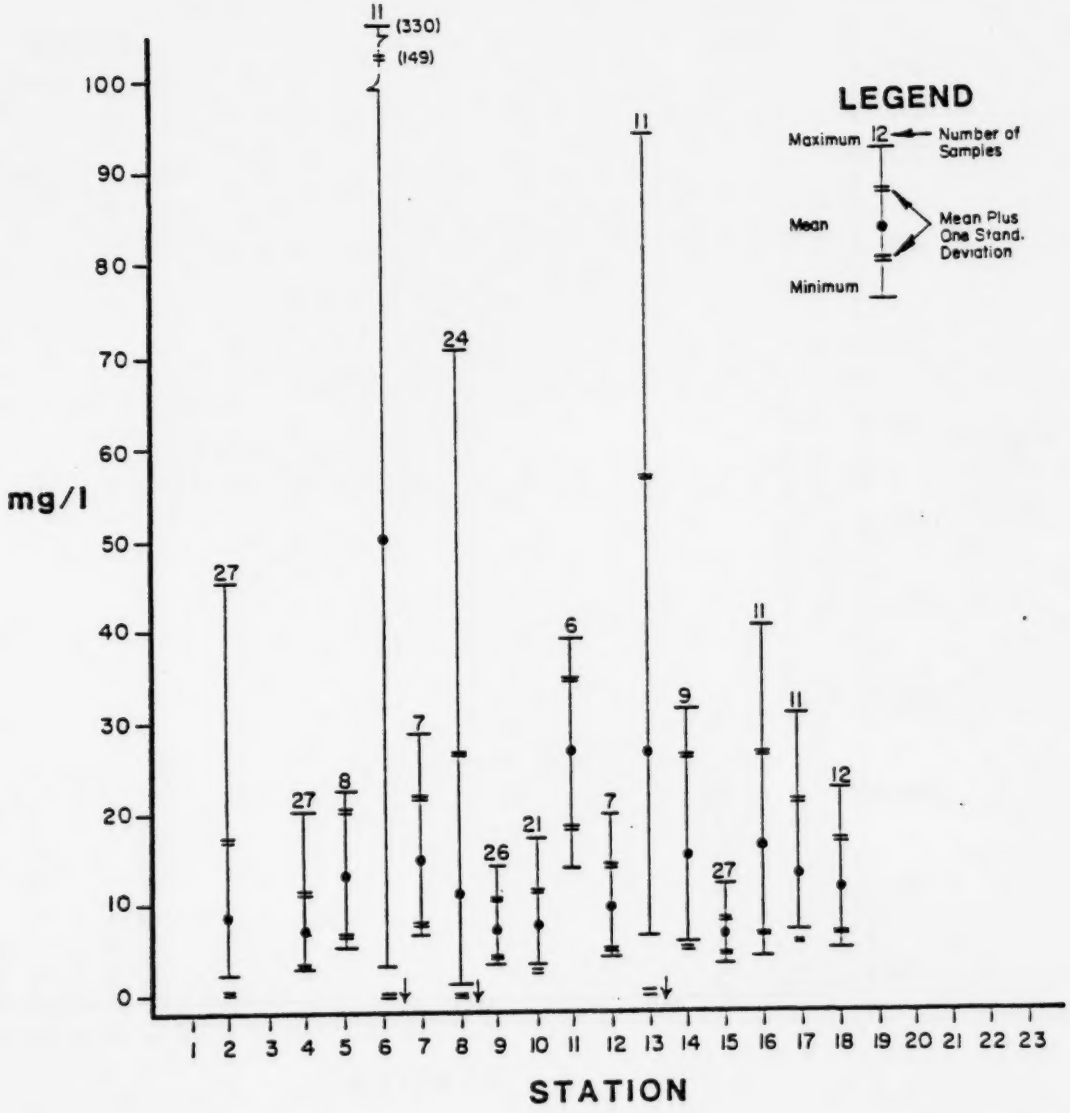

PH
LEGEND
Maximum
12
Number of Samples
Mean
Mean Plus One Stand. Deviation
Minimum
pH Units
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
29
51
4
53
27
35
23
30
31
30
12
26
32
24
48
43
37
46
34
18
4
27
27
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
STATION


LEGEND
Maximum 12 12 Number of Samples
Mean
Mean Plus One Stand. Deviation
Minimum
DISSOLVED
TOTAL RECOVERABLE
ZINC
ug/l
DISSOLVED SCALE
TOTAL SCALE
STATION
(1800)
(2000)

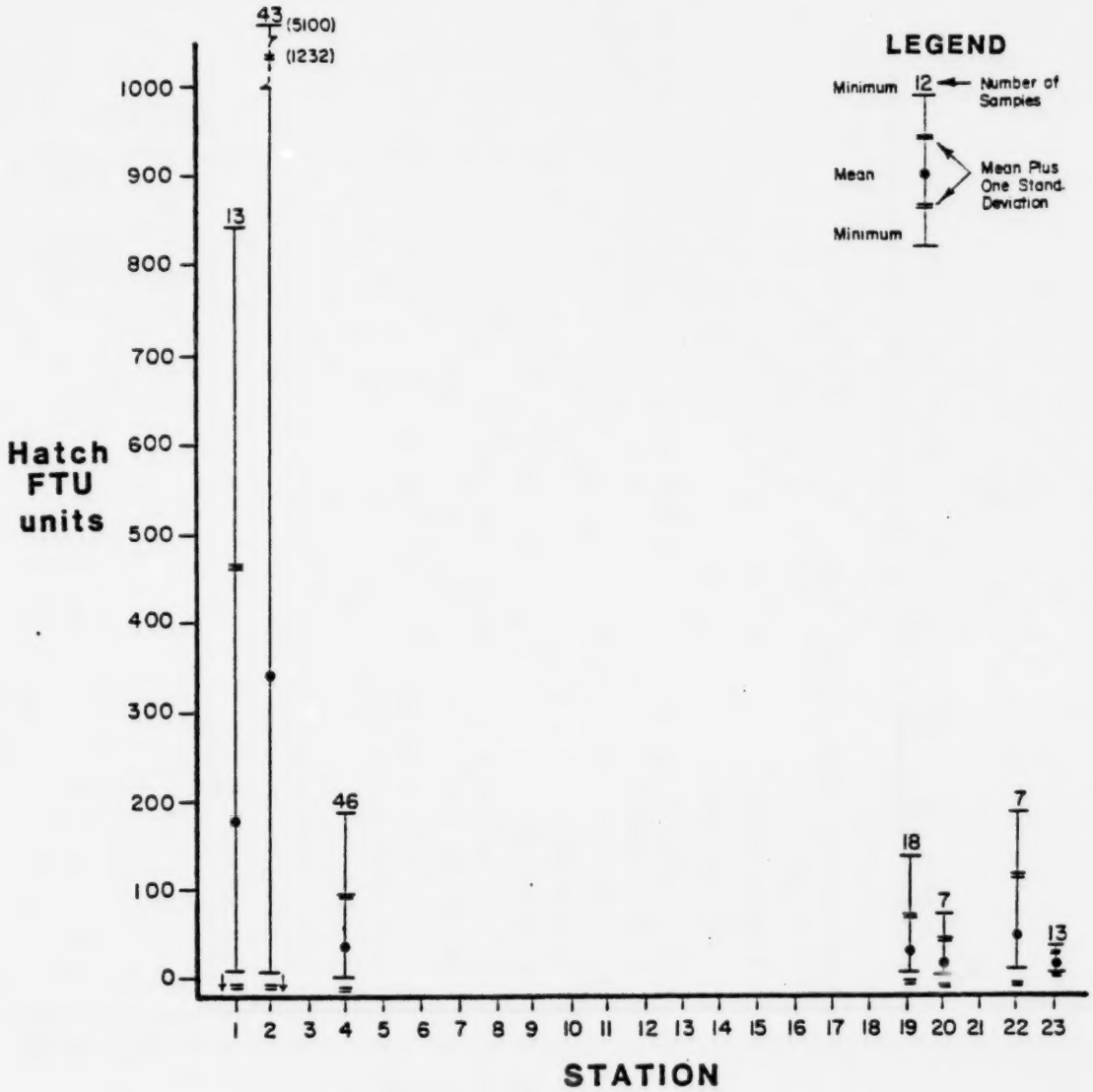
TOTAL CYANIDE



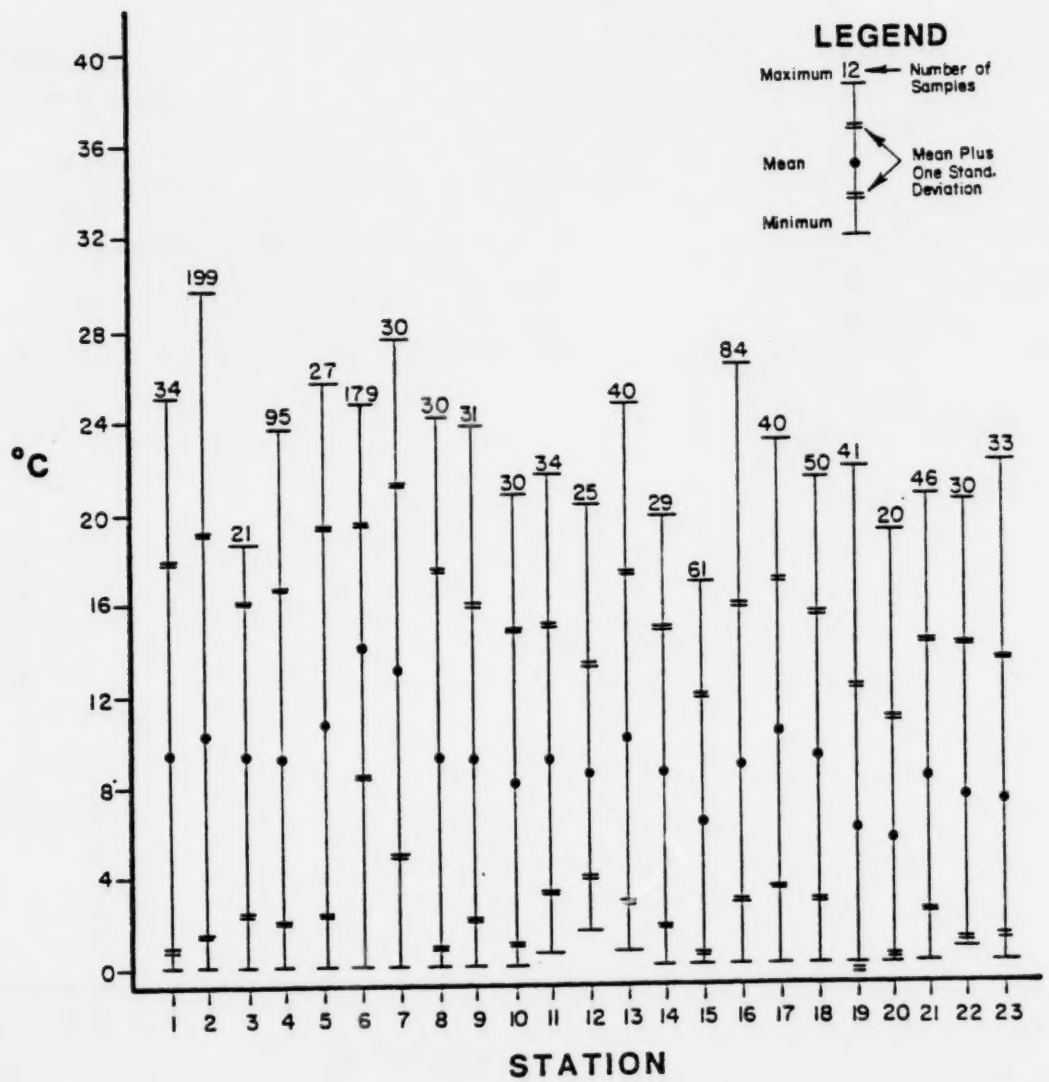
TOTAL ORGANIC CARBON



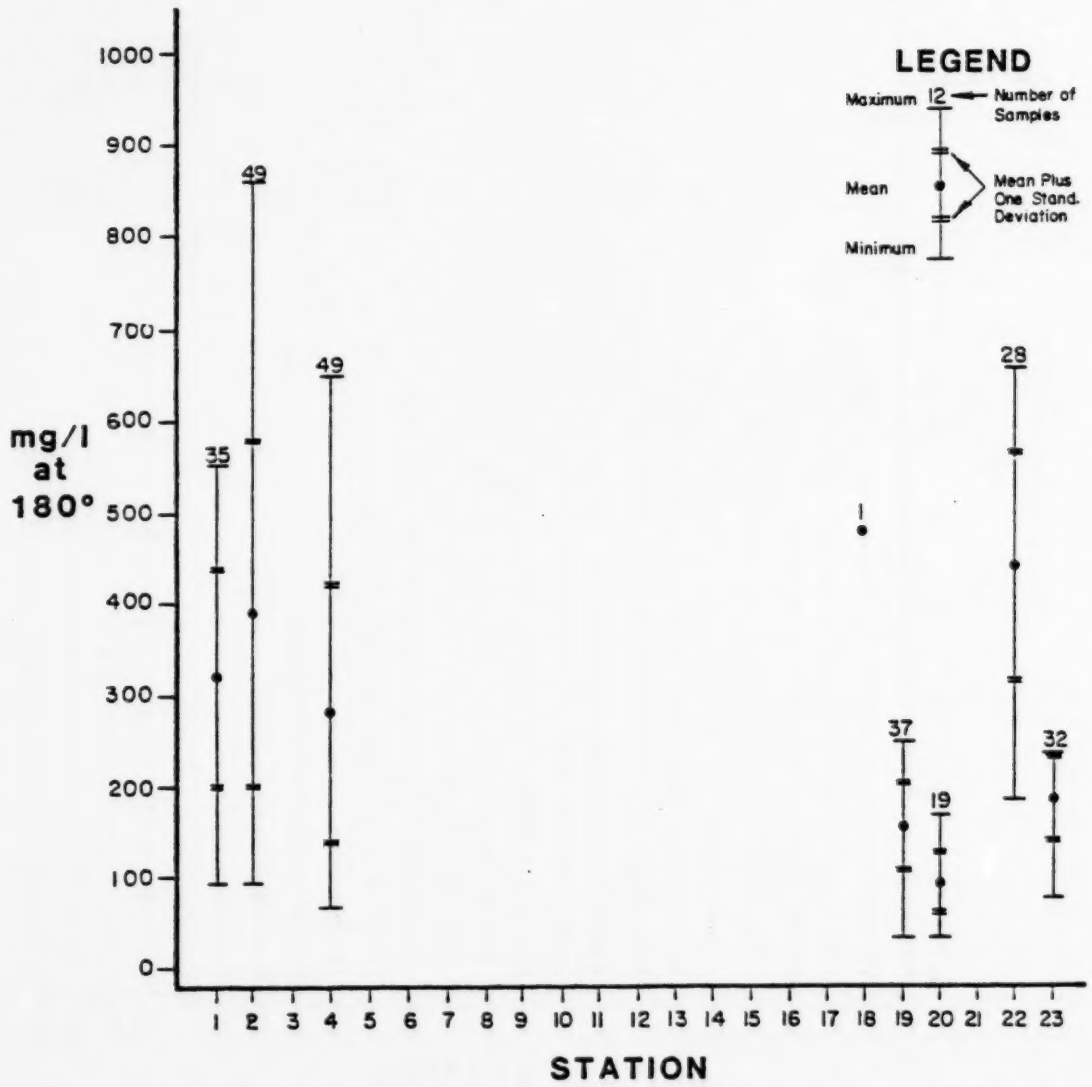
TURBIDITY


LEGEND
Minimum
12
Number of Samples
Mean
Mean Plus One Stand. Deviation
Minimum
Hatch FTU units
1000
900
800
700
600
500
400
300
200
100
0
43
(5100)
(1232)
13
46
18
7
7
13
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
STATION

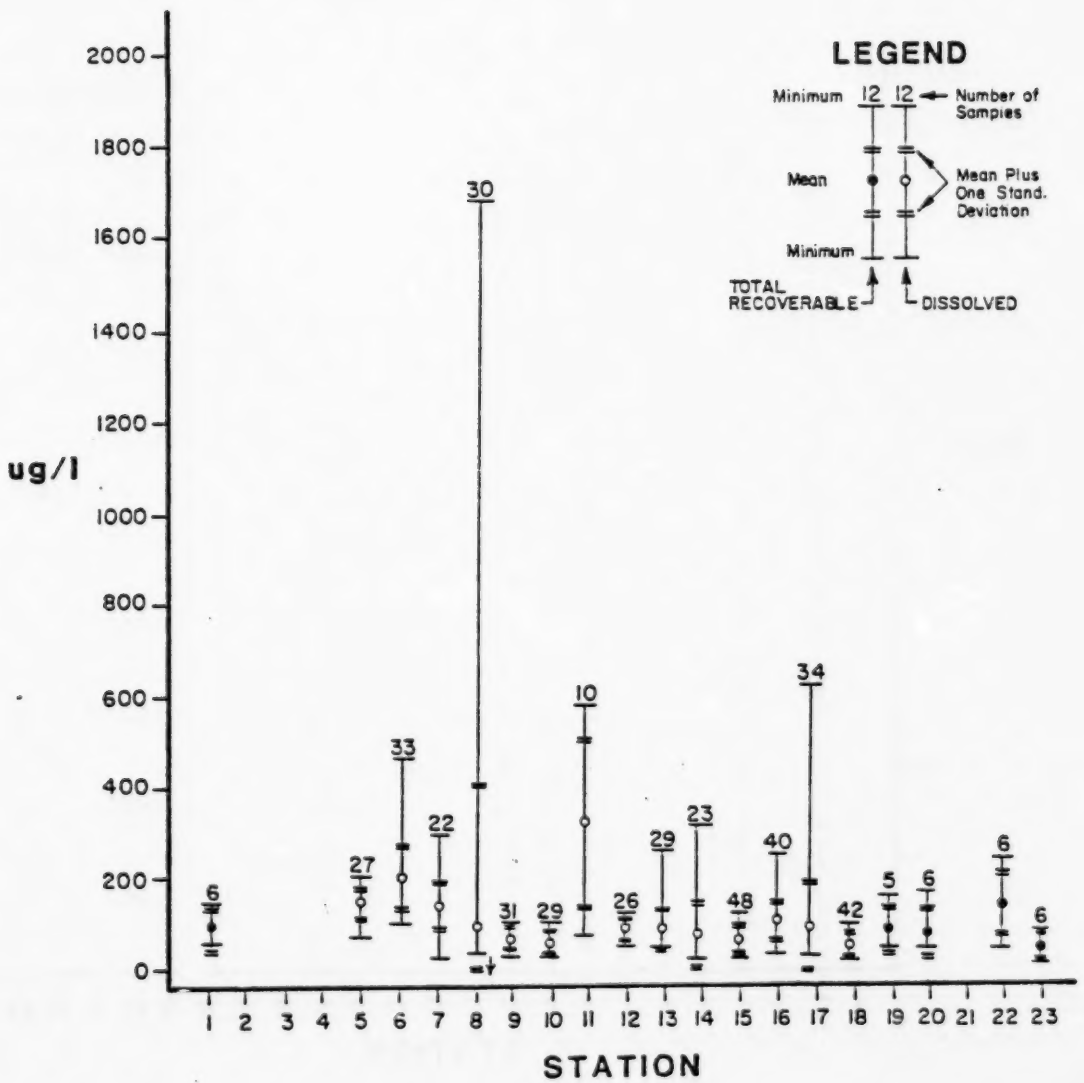
TEMPERATURE



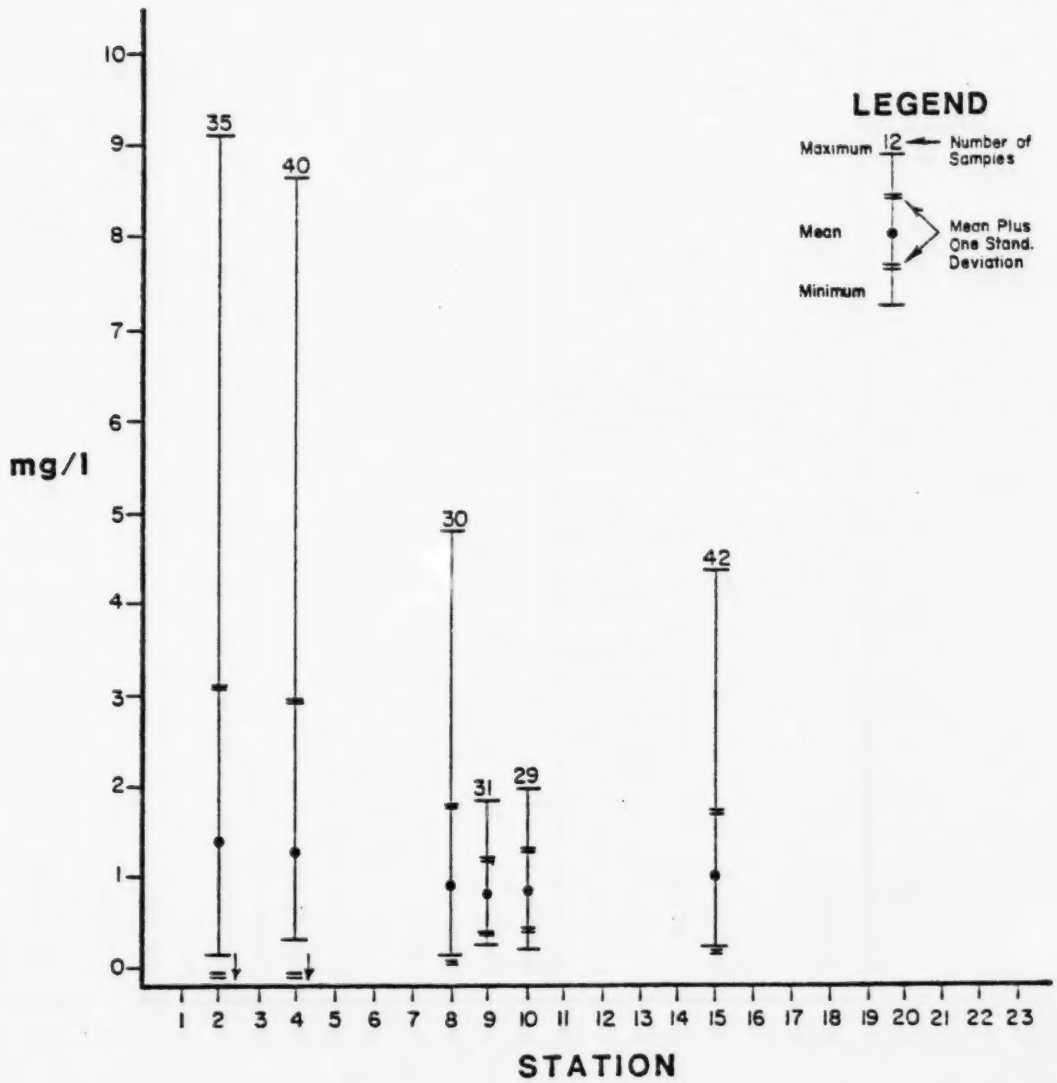
TOTAL DISSOLVED SOLIDS



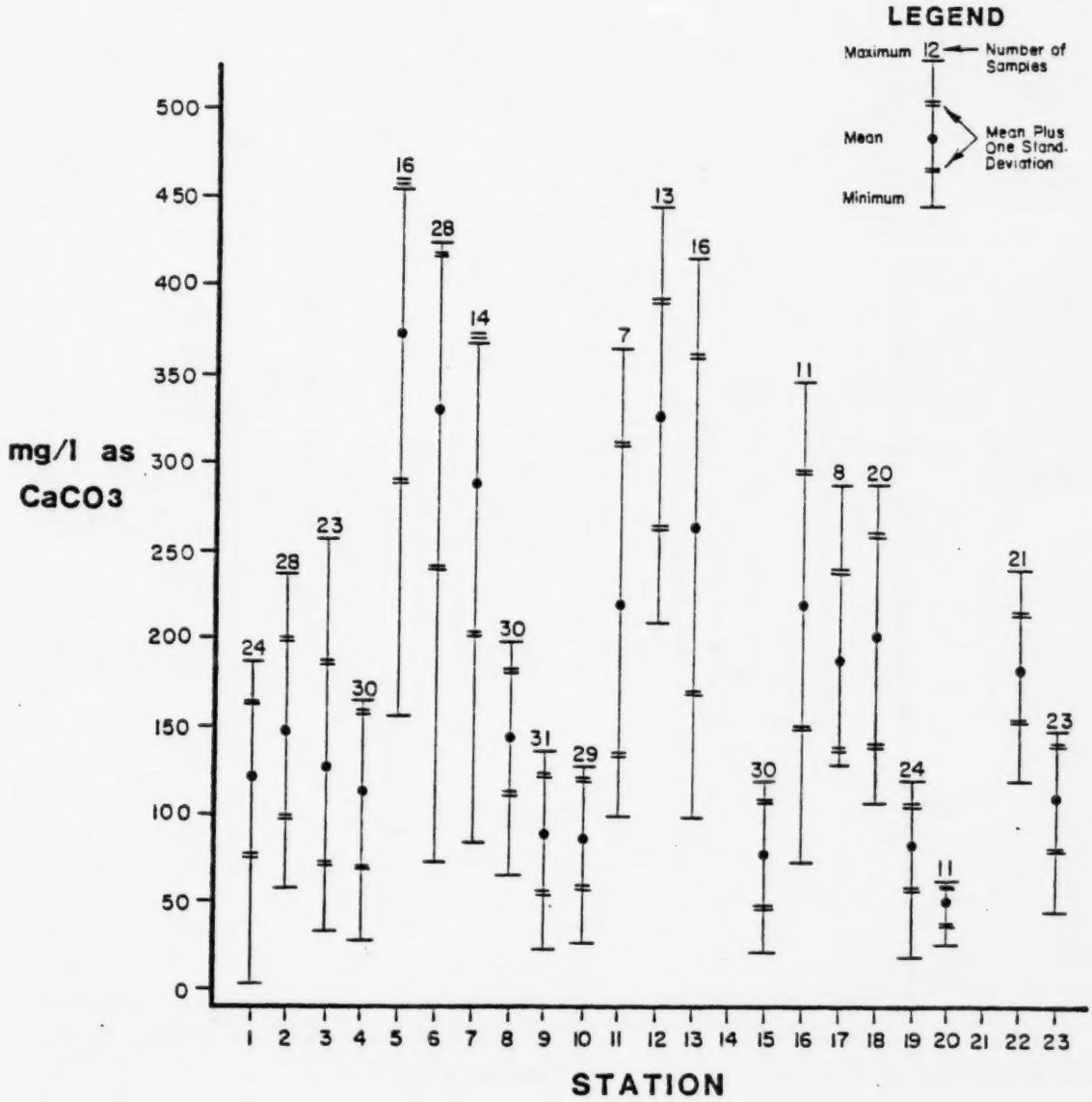
BORON


LEGEND
Minimum
12
12
Number of Samples
Mean
Mean Plus One Stand. Deviation
Minimum
TOTAL RECOVERABLE
DISSOLVED
ug/l
2000
1800
1600
1400
1200
1000
800
600
400
200
0
6
27
33
22
30
31
29
10
26
29
23
48
40
34
42
5
6
6
6
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
STATION

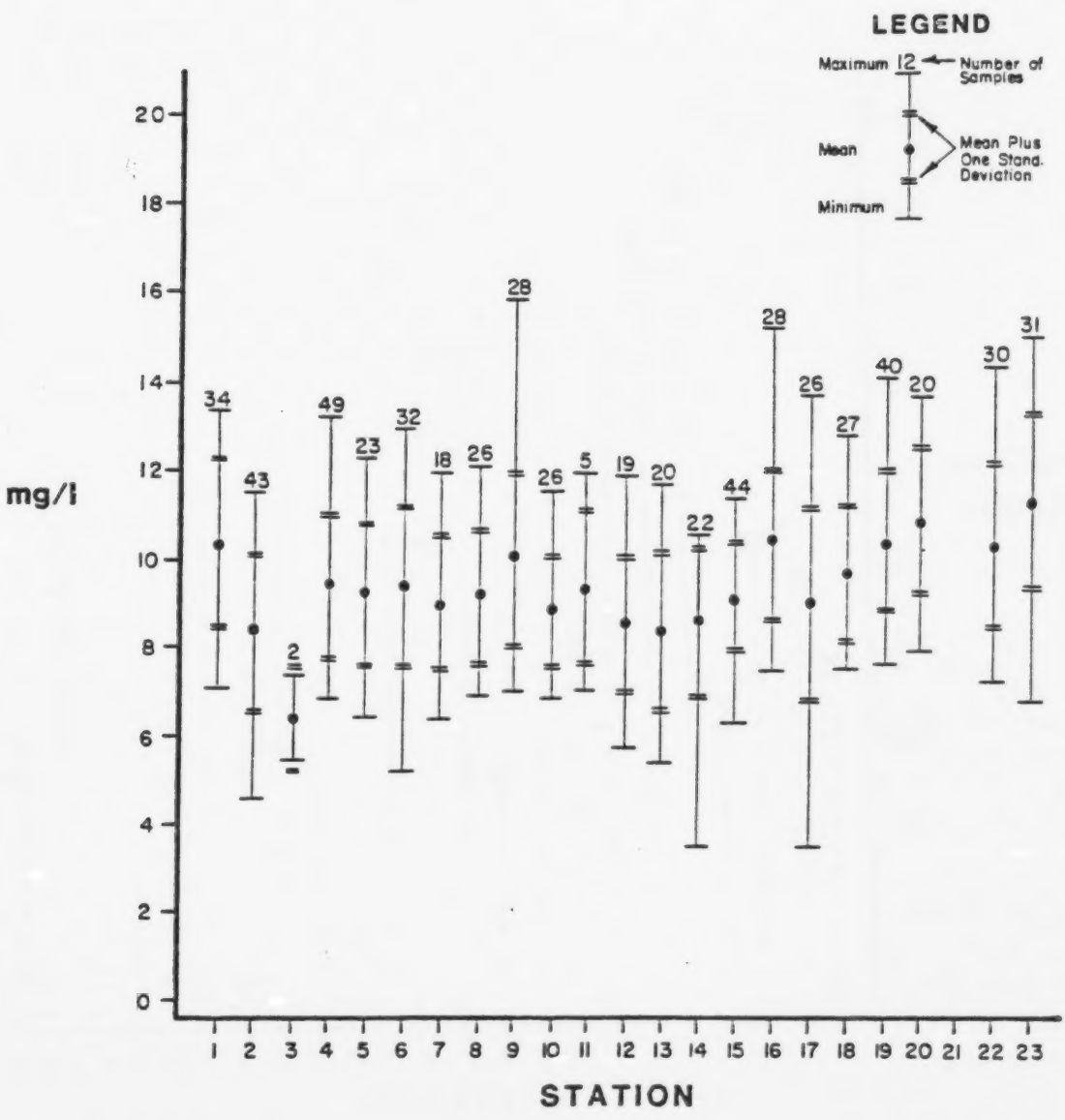
TOTAL NITROGEN



TOTAL ALKALINITY



DISSOLVED OXYGEN



APPENDIX F
FISH DISTRIBUTION SUMMARY TABLE

A complete list of the fish species reported from the Yampa River basin and the basins from which they were reported is contained in Appendix F.

APPENDIX F
FISH DISTRIBUTION SUMMARY TABLE

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Salmonidae								
Mountain whitefish *Prosopium williamsoni*	X	X		X		X	X	X
Brook trout *Salvelinus fontinalis*		X		X	X	X	X	X
Brown trout *Salmo trutta*	X	X		X		X	X	X
Colorado cutthroat trout *Salmo clarki pleuriticus*		X						
Cutthroat trout *Salmo clarki*	X	X		X	X	X	X	X
Rainbow trout *Salmo gairdneri*	X	X	X	X	X	X	X	X
Esocidae								
Northern pike *Esox lucius*	X							
Cyprinidae								
Carp *Cyprinus carpio*	X	X				X		
Utah chub *Gila atraria*	X							
Humpback chub *Gila cypha*	X							
Bonytail chub *Gila elegans*	X							
Roundtail chub *Gila robusta*	X	X		X		X		
Red shiner *Notropis lutrensis*	X	X						
Sand shiner *Notropis stramineus*	X	X						
Fathead minnow *Pimephales promelas*	X	X	X	X		X	X	
Colorado squawfish *Ptychocheilus lucius*	X	X				X		
Speckled dace *Rhinichthys osculus*	X	X	X	X	X	X	X	X
Redside shiner *Richardsonius balteatus*	X	X	X	X		X	X	
Creek chub *Semotilus atromaculatus*	X	X				X	X	
Catostomidae								
Longnose sucker *Catostomus catostomus*		X				X		
White sucker *Catostomus commersoni*	X	X	X	X		X	X	X
Bluehead sucker	X	X		X		X		

(continued)

APPENDIX F (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Catostomus discobolus								
Flannelmouth sucker	X	X	X	X		X		
Catostomus latipinnis								
Mountain sucker		X	X			X	X	X
Catostomus platyrhynchus								
Razorback sucker	X							
Xyrauchen texanus								
Ictaluridae								
Channel catfish	X	X	X					
Ictalurus punctatus								
Black bullhead	X	X	X					
Ictalurus melas								
Cyprinodontidae								
Plains killifish	X							
Fundulus zebrinus								
Centrarchidae								
Green sunfish	X	X	X					
Lepomis cyanellus								
Bluegill	X							
Lepomis macrochirus								
Smallmouth bass	X							
Micropterus dolomieui								
Largemouth bass	X		X					
Micropterus salmoides								
Black crappie			X					
Pomoxis nigromaculatus								
Percidae								
Walleye	X							
Stizostedion vitreum								
Yellow perch			X					
Perca flavescens								
Cottidae								
Mottled sculpin	X	X		X	X	X	X	X
Cottus bairdi								

APPENDIX G
AQUATIC MACROINVERTEBRATE DISTRIBUTION SUMMARY TABLE

A complete list of the aquatic macroinvertebrates reported from the Yampa River basin and the basins from which they were reported is contained in Appendix G.

APPENDIX G
AQUATIC MACROINVERTEBRATE DISTRIBUTION
SUMMARY TABLE

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Tricladida								
Planariidae								
Dugesia sp.							X	
Phagocata sp.						X		
Nematoda	X					X	X	
Oligochaeta		X						
Lumbriculidae						X	X	
Naididae							X	
Tubificidae						X		
Eiseniella tetraedra							X	
Limnodrilus hoffmeisteri							X	
Limodrilus sp.	X						X	
Tubifex sp.	X							
Tubifex tubifex							X	
Hirudinea		X	X					
Erpobdellidae								
Erpobdella punctata							X	
Glossiphoniidae								
Glossiphonia complanata							X	
Glossiphonia sp.						X		
Helobdella stagnalis							X	
Hirudidae								
Macrobdella sp							X	
Amphipoda								
Gammaridae							X	
Gammerus lacustris						X		
Gammerus sp.	X							
Talitridae								
Hyallela azteca						X	X	
Decapoda								
Astacidae								
Orconectes sp.							X	
Hydracarina	X	X				X	X	
Hydrachnidae								
Hydrachna sp.							X	
Lebertiidae								
Lebertia sp.							X	
Limnocharidae								
Limnochares sp.							X	
Mideopsidae								
Mideopsis sp.							X	
Protziidae								
Protzia sp.							X	
Plecoptera			X	X				

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Capniidae								
Capnia coloradensis						X		X
Capnia confusa						X		X
Capnia gracilaria						X		X
Capnia limata	X				X	X		X
Capnia sp.	X					X		
Eucapnopsis brevicauda						X		X
Paracapnia angulata						X		X
Utacapnia lemoniana						X		X
Utacapnia logana						X		
Utacapnia poda						X	X	X
Chloroperlidae								
Alloperla severa						X		X
Alloperla sp.	X	X				X	X	
Paraperla frontalis						X		X
Suwallia lineosa		X				X		X
Suwallia pallidula		X				X	X	X
Sweltsa borealis						X		
Sweltsa coloradensis		X				X	X	X
Sweltsa lamba						X		X
Triznaka diversa						X		
Triznaka pintada						X		X
Triznaka signata	X	X				X	X	X
Leuctridae	X							
Leuctra glabra							X	
Paraleuctra occidentalis						X		
Paraleuctra sara		X				X	X	X
Nemouridae								
Amphinemura venusta						X		X
Malenka californica						X		
Malenka coloradensis						X		
Malenka sp.	X						X	
Nemoura sp.		X				X		
Podmosta decepta		X				X		
Podmosta delicatula		X				X	X	X
Prostoia besametsa						X	X	X
Zapada cinctipes						X		X
Zapada haysi						X		
Zapada oregonensis						X		
Zapada sp.							X	
Perlidae								
Acroneuria sp.		X				X	X	
Calineuria californica	X	X						
Claassenia sabulosa	X					X	X	X
Claassenia sp.	X	X				X		
Hesperoperla pacifica		X				X		X
Perlodidae								

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Arcynopteryx parallela		X				X	X	X
Arcynopteryx signata	X					X		
Arcynopteryx sp.	X					X		
Cultus aestivalis	X					X		X
Diura knowltoni						X		X
Isogenoides colubrinus	X							
Isogenoides elongatus						X		
Isogenoides sp.	X							
Isogenus sp.	X					X	X	
Isoperla ebria						X		
Isoperla fulva						X	X	X
Isoperla longiseta	X							
Isoperla patricia	X	X				X		
Isoperla pinta						X		
Isoperla 5-punctata						X		
Isoperla sp.	X	X				X		
Kogotus modestus								X
Pteronarcidae								
Pteronarcella badia	X	X				X	X	X
Pteronarcella sp.		X				X		
Pteronarcys californica		X				X	X	X
Pteronarcys sp.						X		
Taeniopterygidae								
Brachyptera sp.	X					X	X	
Oemopteryx fosketti	X							
Taenionema nigripennis						X		X
Taenionema pacifica	X					X		
Ephemeroptera			X	X	X			X
Ametropodidae								
Ametropus albrighti	X							
Baetidae								
Baetis sp.	X	X				X	X	
Baetis tricaudatus							X	
Callibaetis sp.	X					X	X	
Dactylobaetis sp.	X							
Pseudocloeon sp.						X		
Pseudocloeon turbidum	X							
Caenidae								
Brachycercus sp.	X					X		
Caenis sp.	X					X	X	
Ephemerellidae								
Ephemerella grandis	X					X	X	
Ephemerella hecuba						X	X	
Ephemerella inermis	X					X	X	
Ephemerella infrequens							X	
Ephemerella margarita							X	
Ephemerella micheneri							X	

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Ephemerella sp.	X	X				X		
Ephemeridae								
Ephemera simulans	X					X		
Heptageniidae								
Cinygmula sp.		X						
Epeorus longimanus							X	
Epeorus sp.		X				X	X	
Heptagenia elegantula	X							
Heptagenia sp.	X					X	X	
Pseudiron sp.	X							
Rhithrogena sp.	X	X				X	X	
Rhithrogena undulata	X							
Stenonema sp.						X		
Leptophlebiidae								
Choroterpes albiannulata	X					X		
Choroterpes sp.	X					X		
Leptophlebia sp.	X							
Paraleptophlebia heteronea							X	
Paraleptophlebia sp.	X	X				X	X	
Traverella albertana	X							
Traverella sp.	X							
Oligoneuriidae								
Lachlania powelli	X							
Lachlania saskatchewanensis	X							
Lachlania sp.	X							
Polymitarcidae								
Ephoron album	X					X		
Ephoron sp.	X							
Siphlonuridae								
Ameletus oregonensis							X	
Ameletus sparsatus							X	
Ameletus sp.	X	X				X		
Isonychia sicca	X							
Isonychia sp.	X							
Parameletus sp.							X	
Siphlonurus sp.		X					X	
Tricorythidae								
Tricorythodes minutus	X					X		
Tricorythodes sp.	X					X	X	
Odonata		X						
Aeschnidae								
Anax sp.							X	
Coenagrionidae								
Amphiagrion sp.							X	
Enallagma sp.							X	
Ischnura sp.						X		
Gomphidae								

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Ophiogomphus severus	X						X	
Ophiogomphus sp.	X					X	X	
Libellulidae								
Sympetrum corruptum							X	
Protoneuridae								
Neoneura sp.							X	
Hemiptera		X						
Corixidae	X							
Graptocorixa sp.						X		
Hesperocorixa laevigata							X	
Hesperocorixa sp.						X		
Gerridae						X		
Naucoridae							X	
Ambrysus mormon	X							
Notonectidae								
Notonecta lobata							X	
Notonecta sp.						X	X	
Notonecta unifasciata							X	
Veliidae							X	
Microvelia sp.						X		
Rhagovelia sp.	X					X		
Megaloptera								
Corydalidae								
Dysmicohermes crepusculus	X							
Sialidae								
Sialis sp.							X	
Trichoptera			X	X	X			X
Brachycentridae								
Brachycentrus americanus	X						X	
Brachycentrus sp.		X				X	X	
Glossosomatidae								
Agapetus boulderensis							X	
Agapetus sp.						X	X	
Anagapetus sp.							X	
Culoptila sp.	X							
Glossosoma sp.		X				X		
Glossosoma ventrale							X	
Protoptila sp.	X					X		
Helicopsychidae								
Helicopsyche sp.	X					X	X	
Hydropsychidae								
Artopsyche grandis							X	
Arctopsyche sp.	X	X				X	X	
Cheumatopsyche sp.	X					X	X	
Diplectrona sp.		X						
Hydropsyche cockerelli							X	
Hydropsyche occidentalis							X	

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Hydropsyche oslari							X	
Hydropsyche sp.	X	X				X	X	
Parapsyche sp.		X				X		
Hydroptilidae								
Agraylea multipunctata							X	
Agraylea sp.	X					X	X	
Hydroptila sp.	X	X				X	X	
Leucotrichia sp.	X					X	X	
Mayatrichia sp.	X							
Neotrichia okapa							X	
Neotrichia sp.	X					X	X	
Ochrotrichia logana							X	
Ochrotrichia sp.	X						X	
Orthotrichia sp.	X							
Lepidostomatidae								
Lepidostoma knowltoni							X	
Lepidostoma moneka							X	
Lepidostoma sp.		X				X	X	
Leptoceridae								
Athripsodes sp.						X		
Ceraclea sp.	X							
Leptocella sp.	X							
Nectopsyche sp.							X	
Oecetis avara							X	
Oecetis sp.	X					X	X	
Triaenodes sp.	X					X		
Limnephilidae		X						
Anabolia bimaculata							X	
Dicosmoecus atripes							X	
Drusinus sp.						X		
Hesperophylax consimilis							X	
Hesperophylax occidentalis							X	
Hesperophylax sp.	X					X	X	
Limnephilus sp.						X	X	
Neothremma sp.							X	
Oligophlebodes minutus							X	
Oligophlebodes sp.							X	
Onocosmoecus unicolor							X	
Platycentropus sp.						X		
Pycnopsyche sp.							X	
Philopotamidae		X						
Wormaldia gabriella							X	
Wormaldia sp.							X	
Phryganeidae								
Phryganea cinerea							X	
Polycentropodidae								
Neureclipsis sp.	X					X		

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Polycentropus sp.	X					X		
Psychomyidae								
Psychomyia sp.	X	X				X	X	
Rhyacophilidae								
Rhyacophila angelita							X	
Rhyacophila sp.		X					X	
Lepidoptera								
Pyralidae								
Cataclysta sp.	X					X		
Paragyractis sp.	X							
Coleoptera				X	X			
Dryopidae								
Dryops sp.	X							
Helichus sp.							X	
Dytiscidae								
Agabinus sp.						X	X	
Agabus disintegratus							X	
Agabus sp.	X					X		
Peronectes sp.	X						X	
Derovatellus sp.						X		
Ereteş sp.	X							
Hydaticus sp.							X	
Hydroporus sp.						X		
Hydroporus tenebrosus							X	
Hydrovatus sp.						X		
Laccodytes sp.	X							
Laccophilus sp.							X	
Oreodytes sp.							X	
Tropisternus sp.							X	
Elmidae		X						
Cleptelmis sp.						X		
Dubiraphia sp.	X					X		
Heterlimnius sp.						X		
Microcylloepus sp.	X					X		
Narpus sp.							X	
Optioservus seriatus							X	
Optioservus sp.	X					X	X	
Zaitzevia parvula							X	
Zaitzevia sp.	X					X	X	
Haliplidae								
Brychias sp.						X	X	
Haliplus sp.						X	X	
Hydraenidae								
Ochthebius sp.						X		
Hydrophilidae							X	
Helophorus sp.						X		
Diptera								

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Anthomyiidae		X						
Limnophora aequifrons						X		
Limnophora sp.	X							
Blepharoceridae						X		
Bibiocephala sp.	X							
Ceratopogonidae								
Bezzia sp.						X	X	
Palpomyia sp.	X						X	
Probezzia sp.							X	
Chaoboridae								
Chaoborus sp.							X	
Chironomidae		X	X	X	X			
Ablabesmyia sp.						X	X	
Brillia sp.							X	
Cardiocladius sp.						X	X	
Chironomus sp.	X					X	X	
Constempellina sp.						X		
Cricotopus sp.	X					X	X	
Cryptochironomus sp.	X					X		
Diamesa sp.	X					X	X	
Dicrotendipes sp.						X		
Endochironomus sp.						X	X	
Eukiefferiella sp.	X					X	X	
Glyptotendipes sp.						X	X	
Heterotrissocladius sp.						X	X	
Micropsectra sp.	X					X	X	
Microtendipes sp.	X					X	X	
Monodiamesa sp.	X					X		
Orthocladius sp.	X					X	X	
Parachironomus sp.	X					X		
Paracladopelma sp.						X	X	
Paralauterborniella sp.	X							
Paratanytarsus sp.						X		
Paratendipes sp.						X		
Pentaneura sp.	X					X	X	
Phaenopsectra sp.						X	X	
Polypedilum sp.	X					X		
Procladius sp.	X						X	
Psectrocladius sp.						X	X	
Pseudochironomus sp.	X					X	X	
Pseudodiamesa sp.							X	
Pseudosmittia sp.						X		
Rheotanytarsus sp.	X					X	X	
Smittia sp.						X		
Stenochironomus sp.						X		
Stictochironomus sp.						X		
Tanytarsus sp.						X	X	

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Thienemanniella sp.						X		
Tribelos sp.	X					X		
Trichocladius sp.						X		
Culicidae								
Culiseta sp.	X							
Deuterophlebiidae						X		
Deuterophlebia sp.							X	
Dolichopodidae						X		
Empididae	X							
Chelifera sp.							X	
Hemerodromia sp.						X		
Wiedemannia sp.							X	
Ephydridae						X		
Paralimna sp.							X	
Muscidae							X	
Psychodidae							X	
Maruina lanceolata		X				X	X	
Pericoma sp.								
Rhagionidae						X		
Atherix sp.		X				X	X	
Atherix variegata	X							X
Simuliidae		X	X	X	X	X	X	
Simulium arcticum	X					X		
Simulium argus						X		
Simulium bivittatum	X					X		
Simulium sp.	X					X		
Simulium venustum						X		
Simulium virgatum						X		
Simulium vittatum								
Stratiomyidae						X	X	
Euparyphus sp.						X		
Stratiomys sp.								
Tabanidae						X		
Chrysops sp.							X	
Tabanus sp.								
Tanyderidae						X		
Protanyderus sp.								
Tipulidae		X					X	
Antocha sp.						X		
Dicranota sp.						X		
Eriocera sp.							X	
Hesperoconopa sp.						X	X	
Hexatoma sp.	X					X		
Ormosia sp.						X	X	
Tipula sp.			X					
Gastropoda								
Valvatidae								

(continued)

APPENDIX G (continued)

Taxa	Lower Yampa and Minor Tributaries	Little Snake River	Milk Creek	Williams Fork River	Fortification Creek	Upper Yampa and Minor Tributaries	Trout Creek	Elk River
Valvata sincera					X			
Lymnaeidae								
Lymnaea bulimoides						X		
Lymnaea elodes	X				X	X		
Lymnaea modicella						X		X
Lymnaea sp.						X	X	
Physidae								
Aplexa hypnorum	X				X	X		
Physa gyrina	X					X	X	X
Physa sp.	X	X				X	X	
Physa virgata	X			X		X		
Planorbidae								
Gyraulus parvus	X							
Gyraulus sp.	X						X	
Helisoma campanulata						X		
Helisoma trivolvis	X				X	X		
Promenetus exacuous	X							
Ancylidae								
Ferrissia rivularis	X			X		X		
Ferrissia sp.							X	
Pelecypoda								
Sphaeriidae								
Musculium lacustre	X				X			
Pisidium casertanum						X		
Pisidium compressum					X	X		
Pisidium nitidum								X
Pisidium sp.		X				X	X	
Psidium variabile							X	
Sphaerium sp.	X					X		
Sphaerium striatinum					X			